

REVISED REMOVAL ACTION WORK PLAN FOR TIER II RESIDENTIAL PROPERTIES SOUTH PLAINFIELD, NEW JERSEY

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EXECUTIVE SUMMARY

The United States Environmental Protection Agency (USEPA) has identified polychlorinated biphenyls (PCBs) in soils at seven residential properties in South Plainfield Township, Middlesex County, New Jersey. These properties are located west of the Hamilton Industrial Park (along Delmore Avenue and Hamilton Boulevard), which has recently been placed on the National Priorities List as a federal Superfund site. Removal action activities and site restoration of these seven residential properties has been mandated under an Administrative Order of Consent (AOC) issued by USEPA under CERCLA (Index Number II-CERCLA-99-2006). ENVIRON has been retained to manage the removal action and restoration of these properties pursuant to the AOC.

This Removal Action Work Plan (Work Plan) has been prepared in accordance with the requirements specified in the AOC, and is largely identical to the Removal Action Work Plan approved by USEPA under AOC Index Number II-CERCLA-98-0115 for the same activities on nearby residential properties. Specifically, this Work Plan defines the scope of activities, and outlines the procedures necessary to complete the removal of soils and restoration of the seven properties. These activities include:

- excavation and disposal of PCB-containing soils;
- relocation of residents during removal action activities, as necessary to complete these activities;
- verification sampling to ensure compliance with the AOC-specified cleanup goal for PCBs in soil;
- restoration of properties disturbed as a result of soil removal activities;
- implementation of quality assurance/quality control protocols; and
- implementation of health and safety procedures necessary to protect workers and residents.

On completion of field activities and validation of analytical data, a Final Report will be prepared which documents the work completed pursuant to the AOC.

1.0 INTRODUCTION

1.1 Background

The United States Environmental Protection Agency (USEPA) has identified polychlorinated biphenyls (PCBs) in soils at seven residential properties in South Plainfield Township, Middlesex County, New Jersey (Tier II Properties). These properties are located west of the Hamilton Industrial Park, which has recently been placed on the National Priorities List as a federal Superfund site (see Figure 1-1). Removal action activities and site restoration of these seven Properties has been mandated under an Administrative Order of Consent (AOC) issued by USEPA under CERCLA (Index Number II-CERCLA-99-2006). ENVIRON has been retained by Cornell Dubilier Electronics, Inc. (CDE) and Dana Corporation (Dana) to manage the removal action and restoration of these properties pursuant to the AOC.

1.2 Site Setting

The Tier II Properties are located along Delmore Avenue and Hamilton Boulevard in South Plainfield, Middlesex County, New Jersey. The properties have been designated by USEPA as Properties U, W, X, AA, BB, CC, and DD as shown in Figure 1-2. Properties U, X, CC, and DD are located on Delmore Avenue; Properties W, AA and BB are located on Hamilton Boulevard.

1.3 Background

Manufacmring operations have been conducted at a facility at 333 Hamilton Boulevard in South Plainfield, New Jersey (now known as the Hamilton Industrial Park) from 1936 to the present. It is alleged that during the operation of the facility, polychlorinated biphenyl (PCB) contaminated materials and other hazardous substances were disposed on-site. USEPA sampling has indicated elevated concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds, PCBs and other constituents in the soils at the Hamilton Industrial Park.

In October 1997, USEPA collected soil samples at residential properties located in the vicinity of the Hamilton Industrial Park. Certain of these initial properties (Tier I properties) are presently being remediated under AOC Index Number II-CERCLA-98-0115 in accordance with the *Revised Residential Property Removal Action Work Plan*, *South Plainfield*, *New Jersey* (Tier I Work Plan) approved by USEPA on December 7, 1998. In April 1998, USEPA collected soil samples at additional properties located in the area surrounding the

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Hamilton Industrial Park. Aroclor-1254 and Aroclor-1260 were detected in the soil samples at concentrations up to 60 mg/kg and 4.6 mg/kg, respectively. On February 26, 1999, an AOC was issued by USEPA requiring sampling, soil remediation and restoration of seven residential properties as described in this Work Plan.

1.4 Purpose and Scope of Work Plan

The purpose of the Work Plan is to define the scope of activities and procedures necessary to complete the removal action and restoration of the Tier II Properties in accordance with the AOC. The main activities comprising the removal action and restoration as specified in the AOC include:

- Soil sampling to verify attainment of cleanup objectives. Verification sampling is discussed in Section 3.
- Excavation of PCB-containing soil from Properties U, W, X, AA, BB, CC and DD. Excavation and restoration activities are described in Section 4.
- Site preparation and temporary relocation of residents during soil removal and restoration activities as necessary to complete removal action activities. Site preparation and relocation requirements are described in Section 5.
- Off-site disposal of excavated soils. Disposal activities are described in Section 6.
- Acquisition of permits and property access necessary to complete removal action activities. Permits and property access issues are described in Section 7.
- Implementation of Quality Assurance/Quality Control (QA/QC) protocols as part of a Quality Assurance Project Plan (QAPP). The QAPP is described in Section 8. The QAPP was approved as part of the Tier I Work Plan.
- Implementation of health and safety procedures for removal action activities. The Health and Safety Plan (HASP) is described in Section 9. The HASP was approved as part of the Tier I Work Plan; updated sections to the HASP are provided as Appendix C.
- Coordination of activities with residents and the community. Community relations are described in Section 10.

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2.0 ASSESSMENT OF EXISTING DATA

2.1 Introduction

Shallow surface soil samples were collected for each Tier II Property by USEPA in April 1998 to characterize the presence of PCBs at these properties. The results of this sampling are provided in Appendix A for the seven subject Tier II Properties. In addition, as described in Sections 3 and 4, pre-excavation verification sampling was conducted in accordance with the March 1999 Sampling and Analysis Plan for Tier II Residential Properties, South Plainfield, New Jersey (Tier II SAP) approval by USEPA on April 2, 1999. These verification data are provided on Table 2-1. Using the existing data for shallow soils, the areas requiring soil removal are defined using a statistical analysis designed to ensure that the AOC-specified cleanup criterion would be met following soil excavation; i.e., the 95% upper confidence limit (UCL) of the mean after soil excavation would not exceed the specified cleanup criterion of 1 mg/kg. The data analysis methodology to be used to define the scope of soil removal necessary to meet this cleanup objective was presented in the Tier I Work Plan, and is summarized in Section 2.2 below.

2.2 Horizontal Delineation of PCB-Containing Soils

Identification of sample locations to be remediated at each Property ¹ is based on surface soil data collected by USEPA, as well as surface soil verification data collected in accordance with the Tier II SAP. This evaluation is conducted according to the following data assessment methodology:

Step 1 - Assemble Existing Data Set

The PCB concentrations measured in surface soil samples are assembled to evaluate removal action requirements at each selected property. In case of a non-detected concentration, one-half the detection limit for Aroclor 1254 and Aroclor 1260 is used in all calculations. For duplicate sample pairs, the average of sample pairs is used in the calculations.

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For the purposes of this Work Plan, the term Property includes the residential property lot specified in the AOC and any adjoining area which would be considered part of the apparent limits of residential use associated with the subject property.

Step 2 - Test for Data Distribution

The Shapiro-Wilk test (USEPA June 1992) is used to determine if the PCB data for a given property follow a normal or log-normal distribution.

Step 3 - Determine Baseline 95% UCL Value

The current (umemediated) 95% UCL value is calculated for each property according to the data distribution identified in Step 2 (USEPA; May 1992).

Step 4 - Identify Sample Locations for Removal Action

Samples are sequentially eliminated from a property data set beginning with samples with the highest concentrations. The reduced data set (i.e., representing the portion of the property that will not require removal action) is retested for distribution type (normal/log-normal), and a new 95% UCL value (i.e., projected post-removal action) is calculated. This process is repeated iteratively until the projected 95% UCL value for the reduced data set no longer exceeds 1 mg/kg.

Step 5 - Definition of Removal Area

Sample locations eliminated from the property data set in Step 4 are designated for soil removal.

3.0 SAMPLING AND ANALYSIS PLAN (SAP)

3.1 Objectives

The sampling and analysis plan (SAP) describes the detailed procedures and methods to be implemented to sample soil and wastes generated during removal action activities to be conducted at the Tier II Properties. The SAP addresses the following elements:

- Excavation verification sampling requirements;
- Disposal sampling requirements;
- Standard field sampling and sampling decontamination protocols;
- Sample management; and
- Laboratory analytical methods.

Air monitoring and analysis procedures are included in the HASP described in Section 9.

The SAP includes standard sampling and analysis procedures, sample management procedures, and incorporates USEPA Chain-of-Custody procedures, as set forth in the *National Enforcement Investigations Center Policies and Procedures Manual* (revised November 1984) the *National Enforcement Investigations Center Manualifor the Evidence Audit* (September 1981), and SW-846.

3.2 Proposed Verification Sampling Approach

Prior to implementation of the removal action, verification samples will be collected from the base and sidewalls of each proposed excavation area. The final extent of required excavation will be determined by the statistical analysis methodology defined in Section 2.2. Specifically, the verification data obtained from sampling on each property will be combined with the remaining surface soil sample data from the portion of the property that is currently designated to remain unexcavated.

In accordance with the AOC, verification sampling will at a minimum include:

• The collection of one sample from the excavation bottom for every 900 square feet of bottom area.

• The collection of one sample at the bottom of each sidewall for every thirty (30) linear feet of sidewall.

The bottom verification samples will be collected as grab samples from the six-inch interval below the proposed excavation depths.

The sidewall verification samples will be collected as grab samples from the sides of the proposed excavation areas at the six-inch interval above the proposed bottom depth of the excavation areas. Verification sidewall sampling will include the collection of a sample from a 0- to 6-inch depth in addition to the sample to be collected at the depth of the bottom of the excavation. The purpose of the 0- to 6-inch surface soil sample is to verify the horizontal surficial limits of excavation. Alternatively, the excavation may be extended to the nearest horizontal barrier (i.e., existing pavement or physical structure), to the limit of apparent residential use (including fencelines), or existing surface sample location not identified for excavation. For the cases where excavations extend to a horizontal barrier, no sidewall verification sampling will be conducted, as the excavation has been extended to a point at which no direct exposure to soil exists (i.e., pavement eliminated direct contact). Similarly, no sidewall samples will be collected where the excavation extends to the limit of residential use associated with the subject Tier II Property. For excavations extended to the nearest surface soil sample not identified for excavation, the 0- to 6-inch sidewall sample will not be collected.

In addition, supplemental samples will be collected outside the proposed excavation area and held by the analytical laboratory for possible future analysis. Supplemental sidewall samples will be collected approximately five feet away from the initial sidewall verification sample locations. Similarly, bottom supplemental samples will be collected at additional depth intervals beneath the proposed excavation depths. The supplemental samples will not be analyzed unless the initial verification samples exhibit concentrations that result in a statistical exceedance of the cleanup level. In this case, the supplemental samples adjacent to the subject initial samples will be analyzed to determine the degree of additional excavation required.

Upon request by USEPA, duplicate and/or split samples of any material sampled in connection with the implementation of the AOC will be provided to USEPA or its designated representatives.

3.2.1 Verification Sampling: Bottom Area Sample Locations

The following steps will be used to identify sample locations at the bottom of each excavation area:

- For each distinct excavation area within a property, the total excavation area will be determined.
- The number of excavation bottom samples will be computed by dividing the excavation area by 900. Any fraction will be rounded up to the nearest whole number.
- The appropriate number of samples will be positioned in central locations throughout each excavation area.

3.2.2 Verification Sampling: Sidewall Sample Locations

The following steps will be used to identify sample locations along each excavation sidewall:

- The total linear feet of the excavation boundary to be sampled will be determined. This excludes sidewalls adjacent to houses, paved areas and residential use boundaries associated with the subject Tier II Property.
- The number of sidewall samples required will be computed by dividing the total linear feet of sidewall (as determined above) by 30 and by rounding up any fraction to the nearest whole number.
- The appropriate number of samples will be evenly distributed along the sidewall. If only one sample is to be collected, the sample will be positioned in the center of the section. If two or more samples are to be collected, the samples will be spaced apart such that the distance between each end sample and the sidewall border is equal to the distance between each sample.

3.3 Disposal Sample Collection

If the selected disposal facility requires characterization samples, these samples will be collected in accordance with the disposal facility's requirements concurrent with the verification sampling activities.

3.4 Field Procedures

This section describes the general approach for implementing field sampling activities for the collection of verification soil samples from each Tier II Property; standard sampling procedures are provided in Appendix A.I of the Tier I Work Plan. The following field protocol will be used.

3.4.1 Shallow Surface Soil Sampling

Shallow surface soil samples will be collected from 0 to 6 inches below any surface cover (i.e. gravel) using a clean hand trowel or hand auger. The trowel or auger will be decontaminated between each sample, following the procedures described in Section 3.4.3 below.

3.4.2 Deep Soil Sampling

Soil samples from below a depth of 6 inches will be collected using a clean hand auger. Samples will be collected from an interval of 0 to 6 inches at the specified depth. The hand auger will be decontaminated between each sample interval, following the procedures described in Section 3.4.3 below. For samples to be collected only from a single discrete interval, one auger may be used until the top of the sampling interval is reached, and then a new decontaminated auger will be used to collect the sample.

3.4.3 Sampling Equipment Decontamination Procedures

All sampling equipment will be decontaminated prior to use and will arrive on-site in clean condition. All sampling equipment will also be decontaminated between each use using the following or equivalent procedure:

- Place dirty equipment on plastic ground sheet or in similar containment area;
- Wash thoroughly with a laboratory detergent (Alconox or equivalent) to remove any particulate matter and/or surface films using bristle brush, as needed (sampling equipment with oil or other hard to remove materials may require rinsing with isopropanol prior to washing with the detergent solution);
- Rinse thoroughly with clean potable water;
- Rinse thoroughly with clean deionized water;

- Air-dry; and
- Wrap decontaminated equipment in aluminum foil (shiny side out) for storage and transportation.

Prior to implementing decontamination of the sampling equipment, a location within the sampling area will be designated for these activities. Wash water will be allowed to evaporate or infiltrate into the ground within areas designated for excavation.

3.4.4 Sample Management

ENVIRON sample management procedures are described in detail in Appendix A.I of the Tier I Work Plan and are summarized below. These procedures are equivalent to those provided in *NEIC Policies and Procedures*, May 1978 [Revised August 1991].

ENVIRON personnel will keep a bound field notebook recording all activities at the Tier II Properties, including sample collection and tracking information. All samples submitted for analysis under this plan will be collected and shipped by ENVIRON personnel. A unique sample code will be assigned to each sample collected. This code will consist of different parts to identify the site, sample media, sample location, and the sample type (i.e., environmental, duplicate sample, field blank, etc.). Sample types and location designations in the sample code will be such that they will be compatible with the site and overall project data base system. The codes and their representation are defined in Table 3-1.

All sampling containers and preservatives will be provided by a designated laboratory. Samples will be stored in coolers until they can be shipped to the laboratory. Samples will be transported from the field to the designated laboratory using an overnight carrier service. All sample containers will be shipped with chain-of-custody records. A separate chain-of-custody will accompany each cooler. These chain-of-custody records will be completed by the field sampling personnel and returned with the samples. All samples shipped to the designated laboratory will be packaged and shipped as excluded materials (as defined in 40 CFR Part 261.4). Sample packaging procedures will comply with all U.S. Department of Transportation (DOT) requirements and International Air Transport Association (IATA) standards, as detailed in the most current edition of the IATA Dangerous Goods Regulations for hazardous materials shipment.

Upon sample receipt at the designated laboratory, all sample collection dates are to be noted by the sample custodian. The required date for completion of analysis (or extraction) will be noted and keyed to the holding time. A Laboratory Project Manager

will have been assigned and will be responsible for ensuring proper execution of all required analyses.

3.5 Laboratory Analytical Methods

Soil samples will be analyzed for PCBs. All analyses for PCBs will comply with the analytical procedures presented in USEPA's *Test Methods for Evaluating Solid Waste* (*Physical/Chemical Methods*), SW-846, Third Edition, September 1986. Method 8082 (Revision 0, December 1996) will be used for PCB analyses. See Table 3-2 for sample preservation, containers and holding times for the specified analyses.

4.0 EXCAVATION AND RESTORATION PLAN

4.1 Introduction

Proposed areas and depths of excavation have been delineated for each Tier II Property based on existing sampling data and the data assessment methodology described in Section 2. Final verification sampling is proposed to be completed prior to excavation in order to verify the limits of excavation and minimize the duration of open excavation on each property. The results of this sampling will be used to refine the excavation depths and areas as described in this section.

4.2 Proposed Excavation Limits

Prior to implementing the removal action, verification samples will be collected from the base and sidewalls of each proposed excavation area in accordance with the excavation verification procedures described in Section 3.2. The extent of required excavation will be determined by statistical analysis in accordance with Section 2.2. Specifically, all verification data obtained from sampling on each property will be combined with the remaining surface soil sample data from the portion of the property that remains unexcavated. The combined data set will then be tested for a normal and log-normal distribution, and a new 95% UCL of the mean PCB concentration for the property will be calculated.

In the case where the 95% UCL value for a property exceeds 1 mg/kg, laboratory analysis will be conducted on the supplemental samples collected adjacent to those initial verification samples that must be excluded from the statistical data set in order to meet the cleanup criterion. The supplemental sampling data will replace the associated initial verification sampling data and the statistical analysis will be conducted with the new data set. Alternatively, if the 95% UCL value is less than or equal to 1 mg/kg, the initial verification samples will be used to define the soil removal boundaries.

The assessment of the existing characterization and verification data for surface soil is presented on Table 4-1. Based on this evaluation of existing data, ENVIRON has applied the following approach for defining the preliminary areal extent of PCBs in soils to be excavated for this removal action.

- As a simplifying step, the removal action area associated with a given sample location is considered to be rectangular.
- Horizontal boundaries of PCB removal action areas are established midway between contiguous sampling points. Barriers such as walls and pavement boundaries, where present, and the Tier II Property boundaries (or associated limits of residential use) are also taken to be horizontal boundaries.
- The depth of excavation for each area is estimated based on verification data for subsurface soils.
- Additional area between separate delineated excavation areas, and between delineated excavation areas and horizontal barriers or residential use limits, may also be excavated to eliminate or reduce the number of verification samples. These additional areas will be identified on a case-by-case basis.

4.2.1 Excavation of Property U

As proposed in the Tier II SAP, 4 bottom samples were collected on Property U. Supplemental verification samples were also collected as described in Section 3.2. Based on the existing data set, the preliminary excavation limits are estimated to include most of the Property. In addition, additional areas of excavation have been designated at this Property. Two excavation subareas have an estimated excavation depth of 0.5 feet and one subarea has an estimated excavation depth of 1.5 feet. An additional verification sample is to be collected to complete the determination of excavation limits. The proposed excavation areas, and existing and proposed verification sampling locations are illustrated in Figure 4-1.

4.2.2 Excavation of Property W

As proposed in the Tier II SAP, 3 bottom samples were collected on Property W. Supplemental verification samples were also collected as described in Section 3.2. Based on the existing data set, the preliminary excavation limits are estimated to include most of the Property with an excavation depth of 1.0 feet. An additional area of excavation has also been designated at this Property. The proposed excavation areas and existing verification sampling locations are illustrated in Figure 4-2.

4.2.3 Excavation of Property X

As proposed in the Tier II SAP, 4 bottom samples and 9 sidewall samples were collected on Property X. Supplemental verification samples were also collected as described in Section 3.2. Based on the existing data set, the preliminary excavation limits encompass one area; the majority of this area has an estimated excavation depth of 0.5 feet with one smaller portion of this excavation area having an estimated excavation depth of 1.0 feet. An additional area of excavation has also been designated at this Property. Additional verification samples are to be collected to complete the determination of excavation limits. The proposed excavation areas, and the existing and proposed verification sampling locations are illustrated in Figure 4-3.

4.2.4 Excavation of Property AA

As proposed in the Tier II SAP, 2 bottom samples were collected on Property AA. Supplemental verification samples were also collected as described in Section 3.2. Based on the existing data set, the preliminary excavation limits encompass two areas having an excavation depth of 0.5 feet. Additional areas of excavation have also been designated at this Property. The proposed excavation areas and existing verification sampling locations are illustrated in Figure 4-4.

4.2.5 Excavation of Property BB

As proposed in the Tier II SAP, 4 bottom samples and 4 sidewall samples were collected on Property BB. Supplemental verification samples were also collected as described in Section 3.2. Based on the existing data set, the preliminary excavation limits encompass three areas with an excavation depth of 0.5 feet. Additional areas of excavation have also been designated at this Property. Additional verification samples are to be collected to complete the determination of excavation limits for one of these areas. The proposed excavation areas, and existing and proposed verification sampling locations are illustrated in Figure 4-5.

4.2.6 Excavation of Property CC

As proposed in the Tier II SAP, 4 bottom samples and 3 sidewall samples were collected on Property CC. Supplemental verification samples were also collected as described in Section 3.2. Based on the existing data set, the preliminary excavation limits encompass two areas with an excavation depth of 0.5 feet. Additional areas of excavation have also been designated at this Property. The proposed excavation areas and existing verification sampling locations are illustrated in Figure 4-6.

4.2.7 Excavation of Property DD

As proposed in the Tier II SAP, 2 bottom samples and 3 sidewall samples were collected on Property DD. Supplemental verification samples were also collected as described in Section 3.2. Based on the existing data set, the preliminary excavation limits encompass two areas. One area has an estimated excavation depth of 0.5 feet. The second area is divided into two subareas with one subarea having a depth of 0.5 feet and one subarea with a depth of 1.5 feet. Additional verification samples are to be collected in both areas to complete the determination of excavation limits. The proposed excavation areas, and existing and proposed verification sampling locations are illustrated in Figure 4-7.

4.3 Excavation Procedures

Each Tier II Property will be prepared prior to excavation in accordance with the procedures described in Section 5. The contractor will then measure and stake out the excavation areas identified on each Tier II Property. Removal of soil and vegetation will be performed using machine or manual excavation methods, depending on the proximity to structures and mature trees. Shovels or other manual soil removal equipment may also be utilized by the contractor if the excavation is located in an area inaccessible by other means. Hand excavation will be conducted at the base of mamre trees located within designated excavation areas in the event that machine excavation is not feasible. Removal of constructed feamres (i.e., fences) are described below; restoration of these features is addressed in Section 4.6. Soil erosion control measures will be implemented as needed to prevent migration of soils out of excavation areas. A water mist will be employed as necessary during excavation in order to control airborne migration of dust. The need for dust control measures, changes in operational procedures, or suspension of dust-generating activities will be determined based on visual observations and air monitoring data to be collected in accordance with the HASP (see Section 9). Specifically, if it is determined that excavation and/or handling of excavated soils is resulting in sustained (i.e., 15 minutes or longer) dust monitoring levels greater than 1 mg/m³ at the exclusion zone boundary, then immediate actions will be taken to reduce these dust levels. To the extent possible, all excavated areas will be backfilled with clean fill soil at the end of each work day.

4.4 Soil Loading and Staging Procedures

The preferred approach for removing excavated soils from the project site is to have the excavated soil directly loaded into trucks from the excavation areas. Trucks awaiting receipt of excavated soil will be staged along Delmore Avenue. Trucks to be loaded will be parked on the street in front of the Tier II Property being excavated. Loaded excavation machines (i.e. backhoes) will utilize only the designated pathway in order to transport soil from the

excavation area to the truck. Manually excavated soil will be transported along the same path using a wheelbarrow or other mobile transport mechanism.

However, while direct loading is the preferred for this project, the physical constraints of the Tier II properties (e.g., available working area on the properties and overhead obstructions) limit the contractor's ability to operate a loader of the size required to load the dump trailers. Therefore, it is anticipated that soils will be loaded from the excavator to a dedicated dump truck and moved to a staging area located on the Hamilton Industrial Park site.

Preparation of the excavated soil staging area is discussed in Section 5.5.4. If disposal transportation is not available by the end of the work day, a plastic tarp will be securely placed on top of the soil pile to prevent any erosion by the wind or rain. In addition, the following operational requirements will be implemented during the loading and unloading of soils in this area:

- 1. A gravel access road leading from the Hamilton Industrial Park site boundary along Spicer Avenue to the staging area will be maintained to reduce the contact between trucks entering and exiting this area with the native soils.
- 2. Truck tires will be inspected for accumulated soil when exiting the site and any accumulated soil will be removed (by dry brushing or water spray) to minimize tracking of soil outside the area. The truck inspection location will be prepared as a low point in the gravel access road. This section of the access road will be covered with 20-mil HDPE (or similar material) during transportation activities to collect materials removed from the tires; dry material will be swept up and water will be collected in a sump (e.g., a lined shallow pit or 55-gallon drum placed into the ground) to be installed adjacent to this low point. This covered section of access road will be of sufficient size to accommodate one set of tires at a time for cleaning. The cover liner will be replaced as needed if worn out or torn due to tire traffic.
- 3. In the event that soil erosion from the staging and surrounding work area is identified, then an additional erosion control fence will be installed at the perimeter of the contractor's staging/storage area.

4.5 Equipment Decontamination Procedures

To the extent practicable, mechanized equipment (i.e. backhoes) will begin excavations from a clean area and will excavate linearly, so that the wheels of the machine do not contact PCB-containing soils within an excavation area. In between excavation areas on a Property, a

visual inspection of the equipment will be performed; visible soils or other debris will be removed and collected for disposal. In order to prevent excavated soil from contacting clean soil outside the exclusion zone, plastic sheeting or other ground cover will be placed along the path of the excavating equipment. As soil spilled on the ground cover may contact the wheels of mechanized equipment, the ground cover will be periodically swept toward the exclusion zone and collected for transfer to the dump truck. During transport of excavated soil to the disposal truck, mechanized excavation equipment will be visually inspected and any accumulated dust or soil will be removed.

At the end of each work day, excavation machines and hand-held equipment may remain on-site within an area secured by construction fencing. Alternately, such equipment may be removed off-site or stored in the staging area described in Section 5. Any visually contaminated equipment leaving the Property at the end of the work day must be decontaminated by steam cleaning in the decontamination zone. Wheels of excavation equipment must be visually inspected and any accumulated dust or soil removed for disposal. Wash water from the decontamination area will be collected for off-site management.

4.6 Property Restoration

Following completion of excavation activities, the excavated areas will be backfilled with clean soil and graded to original condition. Fences will be reinstalled after site grading in the original locations. The timing of complete restoration of landscaping and certain construction features will depend on the season and weather conditions. Landscape restoration will be to existing conditions or equivalent value; landscaping will be conducted by a landscaping contractor in accordance with a certified landscape architecture plan and planting schedule to be developed for each Tier II Property as part of the final remedial design preparation (see Section 11).

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5.0 SITE PREPARATION

5.1 Introduction

This section summarizes the activities that will be conducted on or in the vicinity of the Tier II Properties prior to the excavation of soil as described in Section 4.

5.2 Property Survey

A land survey will be conducted on each Tier II Property to verify the metes and bounds of each property. As part of this survey, the property comers will be identified with a wooden surveyor's stake or pin. An inventory will be taken of the existing vegetation and construction features on each Tier II Property, and photographs will be taken so that the areas disturbed as a result of the removal action may be restored to pre-construction conditions or equivalent. The survey, inventory and photography activities will be conducted by a licensed survey/landscape architecture firm and will be completed prior to implementation of this Work Plan. Documentation resulting from these activities will be used in the development of a restoration schedule for each property.

5.3 Resident Relocation

The removal action activities on each Tier II Property will be scheduled to minimize dismption of residential activities. Based on the scope of excavation, the duration of remedial activity, and the dust control measures proposed in this Work Plan, no residential relocation is proposed for Properties U, W, X, AA, BB, CC, or DD. If a resident desires to voluntarily relocate during excavation activities on his or her property, relocation will also be implemented in accordance with the relocation procedures described below. Expenses for temporary relocation will be addressed through a per diem payment.

Relocation of residents at any Tier II Property will be implemented one day prior to preparation of work zones as described in Section 5.5. Residents may move to a temporary location of the residents' choosing; any pets must be relocated with the residents. Relocated residents may not be permitted to enter their residences during implementation of the Work Plan. Relocated residents will be asked to provide the address and telephone number of their temporary location so that they may be contacted if necessary. Security will be provided as described in Section 5.4 for those Tier II Properties whose residents have relocated.

5.4 Security

Prior to implementation of excavation activities, work zones will be defined as described in Section 5.5. All personnel entering the Tier II Property will sign an entry/exit log. Only authorized personnel meeting the requirements of the HASP will be allowed access to the Tier II Property. Entry onto the Tier II Property by other personnel will be at the discretion of the Project Coordinator and in accordance with the HASP. Exceptions to this policy will be documented by a signed waiver from individuals entering the Site. Access to the Tier II Property will be restricted by the Project Coordinator and the USEPA On-Scene Coordinator. Appropriate security measures will be implemented at those Tier II Properties whose residents have relocated.

5.5 Preparation of Work Site

5.5.1 Delineation of Work Zones

Initial work zones at each Tier II Property are proposed in Figures 4-1 through 4-7. Exclusion zones, contamination reduction zones and clean zones will be delineated in accordance with the HASP. Exclusion zones include all areas proposed for excavation and any clean areas located between excavation areas. Contaminant reduction zones are butter zones between the exclusion zones and the clean zones defined below. The contaminant reduction zones include, where feasible, clean areas on each Tier II Property surrounding the exclusion zones. Due to the limited work area at each Tier II Property and the proximity of each Tier II Property to other residences not included in this Work Plan, it is not likely to be feasible to designate contaminant reduction zones around the complete perimeter of each exclusion zone. Clean zones are those areas not included in the scope of this Work Plan and include equipment storage areas and facilities described in Section 5.5.4. Decontamination zones are those areas on each Tier II Property designated for decontamination of remediation workers. Decontamination zones will be located on areas adjacent to each exclusion zone that have not been identified for soil removal action. The perimeters of these zones will be clearly marked on each Property, and entry to the various areas will be controlled to limit access to authorized workers wearing the proper equipment. The perimeters of the work zones will be redesignated as soil removal activities progress. The HASP addresses the restrictions to access in each work zone and the required levels of protection.

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5.5.2 Residence Preparation

Uncovered house vents (e.g., attic vents, air conditioner units) will be covered with plastic before excavation activities are initiated. Continuous air monitoring will be conducted immediately downwind of excavation areas during removal activities as described in Section 9. In the event that the dust action level specified in the HASP is exceeded at an active excavation area, all portals along the side of the house where excavation activities are being conducted will be covered with plastic during excavation in order to minimize the potential for dust from excavation activities entering the residence.

5.5.3 Utility Markout

Underground utilities on each Tier II Property will be identified prior to excavation by the contractor using the New Jersey One Call service and any additional resources required. The property owners will also be contacted to identify any underground utilities installed by the owner.

5.5.4 Staging and Storage Area

In the event that direct loading carmot occur, the soil will be temporarily staged on the Hamilton Industrial Park site. Excavated soil will be transported to the staging area using a dedicated dump truck. This staging area is to be prepared according to one of the following designs (see Figure 5-1):

Option 1: Use a portion of the existing paved and fenced truck driving school area located within the Hamilton Industrial Park site. The excavated soil staging area would be constructed with a 20-mil HDPE liner (or similar liner material) and a plastic working liner placed over the existing pavement.

Option 2: Use the contractor staging/stockpile area defined for the Tier I removal action. The excavated soil staging area would be constructed as follows:

- 1. A geotextile fabric over the native soil;
- 2. A 6-inch layer of base stone over the fabric;
- 3. A 20-mil HDPE liner (or similar liner material) over the base stone layer;
- 4. A 3-inch layer of cover stone over the plastic liner; and
- 5. Plastic working liner over the cover stone.

In addition to the staging area liner, a silt fence or hay bale barrier will be installed around the staging area to minimize the potential for soils to migrate outside the staging area. Potential erosion of the stockpiled soil will also be minimized by a plastic tarp to be placed over the soil pile at the end of each work day. The temporary soil staging area locations are designated on Figure 1-2. For either staging area option, the use of the multi-layered liner will provide a barrier between the staged soil and the existing ground surface, and allow us to determine that all staged soils have been removed on completion of the project. On completion of the project, the plastic liner(s) and silt fence will be removed. If Option 2 is utilized, the cover stone layer will also be removed for off-site disposal. In addition, the unpaved portions of contractor's staging/storage area will be seeded to restore a vegetative cover to the disturbed area, and the Hamilton Industrial Park fencing will be restored to pre-construction condition. The gravel access road may remain following completion of the project as it provides a stable soil cover and could potentially be used for future access to the site.

An equipment storage area is proposed on the Hamilton Industrial Park property as indicated in Figure 1-2. Personal hygiene facilities (i.e. portable toilets and face washes) will be located in the equipment storage area. No trailers or temporary offices are proposed for implementation of this Work Plan; it is anticipated that daily support services can be provided by contractors from service vehicles as required. If temporary support facilities are required, such facilities will be provided by the contractor and located on the Hamilton Industrial Park site.

5.5.5 Decontamination Areas

Prior to implementation of excavation activities, decontamination areas will be located adjacent to each exclusion zone as described above. Workers exiting the exclusion zone on foot must follow decontamination procedures as described in the HASP. Hand-held equipment must be decontaminated in accordance with decontamination procedures described in Section 3.4.3. Heavy equipment will be decontaminated in accordance with the procedures described in Section 4.5.

6.0 DISPOSAL PLAN

6.1 Scope of Removal Activities

Based on the results of the existing characterization sampling data, several areas at each of the seven Tier II Properties were identified for excavation. The total quantity of soils to be excavated is estimated to be 540 tons (360 cubic yards). The approximate quantities of soil to be excavated from each Tier II property are:

•	Property U:	85 tons
•	Property W:	130 tons
•	Property X:	125 tons
•	Property AA:	25 tons
•	Property BB:	35 tons
•	Property CC:	60 tons
•	Property DD:	80 tons

The maximum concentration of PCBs, as determined in characterization and verification soil sampling, was 74 mg/kg, identified on Property DD. According to 40 CFR Subpart 761, soils with PCB levels less than 50 mg/kg may be disposed in a Subtitle D landfill if otherwise classified as nonhazardous. Soils with PCB levels greater than 50 mg/kg must be disposed in a TSCA landfill. The excavated soil from the Tier II Properties (with the exception of Property DD) is expected to be categorized as non-hazardous, non-TSCA waste. The non-hazardous, non-TSCA soil is anticipated to be sent to the G.R.O.W.S., Inc. Landfill in Morrisville, Pennsylvania. TSCA-regulated soil (i.e., soil from Property DD) is anticipated to be sent to the CWM Chemical Services TSCA landfill in Model City, New York.

Additional information on these facilities and other facilities considered for this removal action is provided in Appendix C of the Tier I Work Plan.

Transportation of PCB-containing soils will comply with applicable federal and state regulations. Special placards are not required by DOT for placement on the waste transportation vehicles for non-TSCA, non-hazardous waste. The appropriate placards will be placed on vehicles that transport TSCA-regulated waste.

6.2 Disposal Requirements

Soil disposal activities must meet the requirements of the selected disposal facility. These requirements are described below. ENVIRON has contacted each facility in order to identify the specific requirements for waste acceptance as described below.

• Maximum Allowable Chemical Concentration Limits

The maximum PCB soil concentration accepted by each facility is as follows:

-- G.R.O.W.S. Landfill: 50 mg/kg

-- CWM Chemical Services: 500 mg/kg

- High Acres Landfill: 50 mg/kg

The existing sampling data indicate that PCB concentrations at all of the Tier II Properties fall below the accepted limits of the appropriate facility under consideration.

• Waste Characterization

The selected facilities will accept the existing data as sufficient for characterization; therefore, additional sampling for waste characterization is not anticipated. However, if necessary, samples may be collected concurrently with the collection of the remedial verification samples. The samples will be collected in accordance with the standard sampling procedures provided in Appendix A.I of the Tier I Work Plan.

• Facility Forms

Waste profiles and non-hazardous waste certification sheets, where applicable, are required by each of the facilities. These forms will be completed for the selected disposal facility prior to implementation of this Work Plan.

• <u>Transportation Permits</u>

The transporter requirements are specific to each state. Each transporter must have the appropriate permit for the state of the destination landfill or treatment facility.

6.3 Disposal Notifications

USEPA was provided with the list of off-site waste treatment and disposal facilities being considered for the Tier I removal action on September 4 and September 23, 1998. USEPA will be notified of the names and addresses of all off-site waste treatment, storage or disposal

facilities ultimately selected to receive soils from the Tier II Properties. This notification will be provided at least five (5) days prior to off-Site shipment of such wastes.

In addition, at least five (5) working days prior to out-of-state waste shipments, the environmental agency of the receiving state will be notified of the following: (a) the name and location of the facility to which the wastes are to be shipped; (b) the type and quantity of waste to be shipped; (c) the expected schedule for the waste shipments; (d) the method of transportation and name of transporter; and (e) treatment and/or disposal method of the waste streams.

In the event that any waste is destroyed pursuant to the AOC, certificates of destruction will be provided to USEPA upon receipt of them. These certificates will be included in the biweekly progress reports.

7.0 PERMITS, APPROVALS AND SITE ACCESS

7.1 Permits and Approvals

All activities required of CDE and Dana under the terms of the AOC will be performed only by qualified persons possessing all necessary permits, licenses and other authorizations required by federal, state and local governments, and all work conducted pursuant to the AOC will be performed in accordance with prevailing professional standards.

All hazardous substances, pollutants, or contaminants removed from the Tier II Properties pursuant to the AOC for off-Site treatment, storage or disposal will be treated, stored, or disposed of in compliance with (a) Section 121(d)(3) of CERCLA, 42 U.S.C. §9621(d)(3), (b) Section 300.440 of the NCP, (c) RCRA, (d) the Toxic Substances Control Act ("TSCA"), 15 U.S.C. §2601, et seq., and (f) all other applicable federal and state requirements. However, as specified in the AOC pursuant to CERCLA and the NCP, no permit shall be required for any portion of the work that is conducted entirely on the Hamilton Industrial Park or at the Residential Properties.

If hazardous substances from the Tier II Properties are to be shipped outside of the State of New Jersey, notification of such out-of-state waste shipments will be provided in accordance with OSWER Directive 9330.2-07. Transportation of wastes off-site will comply with federal and state labeling, packaging and transportation requirements.

7.2 Property Access

Access agreements will be obtained from the owners of each of the seven Tier II Properties (Table 7-1) to conduct the work specified in the AOC. Copies of these agreements are provided in Appendix B. With the exception of Properties W and AA, it is not anticipated that during implementation of the Work Plan the soil removal action will require short- or long-term use of adjoining residential private property owned by parties other than the Tier II Property owners, or that the soil removal action at each Tier II Property will include actions that might restrict access to or use of adjoining private residential property. Because of limited working space and difficult access conditions along Hamilton Boulevard, access to Properties W and AA via adjoining properties will be necessary to perform the required excavation activities. Inquiries regarding access to the property adjacent to Property AA have been initiated. In addition, site access has been requested from the current owner of the

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Hamilton Industrial Park for that portion of the property necessary to access Property W and for the area proposed for support activities as identified in this Work Plan. It is possible that access to public property (i.e. streets and/or sidewalks) may need to be restricted in order to implement portions of this Work Plan. Best efforts will be used to obtain access to any affected private or public property(s) prior to implementation of this Work Plan.

USEPA, NJDEP and their designated representatives, including, but not limited to, employees, agents, contractor(s) and consultant(s) thereof, will be permitted to observe the Work carried out pursuant to the AOC. USEPA, NJDEP, and their designated representatives will at all times be provided full access to and freedom of movement at the Tier II Properties and any other premises where Work under the AOC is to be performed for purposes of inspecting or observing progress in implementing the requirements of the AOC, verifying the information submitted to USEPA, conducting investigations relating to contamination at the Tier II Properties, or for any other purpose USEPA determines to be reasonably related to USEPA's oversight of the implementation of the AOC.

8.0 QUALITY ASSURANCE PROJECT PLAN

8.1 Purpose

A QAPP has been prepared in accordance with the following guidance documents for all sample collection and analysis activities conducted pursuant to the AOC: USEPA SW-846; Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Environmental Monitoring, USEPA, May 1984; National Enforcement Investigations Center Policies and Procedures Manual, May 1978, revised August 1991; and the National Enforcement Investigations Center Manual for the Evidence Audit, September 1981. The QAPP is provided as Appendix A to the Tier I Work Plan. The purpose of the QAPP is to summarize the standard procedures and methods for sample collection and analysis to be followed during implementation of removal action activities. This will ensure that the results are of sufficient quality and can be used to (1) reliably indicate the presence or absence of PCBs; and (2) reliably determine the extent of soil removal required in order to remediate the site in accordance with the criterion specified in the AOC.

Standard quality assurance/quality control (QA/QC) protocols will be followed during this sampling program to ensure that the results of this sampling are of sufficient quality and can be used to reliably indicate the presence or absence of constituents. QA/QC protocols to be utilized for this program are equivalent to those provided in the guidance documents described above. The evaluation of data will involve the collection of QC samples in accordance with the sampling and analysis protocols. The QA/QC protocols will also include the systematic validation of the analytical data and the management of the analytical data in electronic format. A description of the general QA/QC program to be implemented under this program is provided in Appendix A.2 of the Tier I Work Plan with project-specific requirements discussed below. Standard sampling and sample management procedures, as described in Section 3, are addressed in Appendix A.I of the Tier I Work Plan.

8.2 Removal Action Objectives and Data Usage

The purpose of this removal action is to characterize and remove designated PCB-containing soils on each Tier II Property as specified in this Work Plan. The scope of removal action activities is described in Section 4 of this Work Plan. The data collected from these activities will be used to assess the nature and extent of PCB-containing soils and to confirm delineation

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of soil removal areas. Samples will be collected on each Tier II Property as required to support the removal action objectives indicated above. Sample collection parameters (i.e. frequency, quantity, type, location) and analytical specifications (i.e. analytical method, parameter table) for samples collected as part of this removal action are described in Sections 3 and 4.

8.3 Quality Control Field Samples

8.3.1 Contamination Control Samples (Equipment Rinsates and Trip Blanks) Equipment rinsates are used to confirm that the sample bottle, sampling device, and the sampling procedure are not contaminating the sample. Contaminant-free water is transported to the sampling point, poured over or through the sample collection device, collected in a sample container, preserved, and returned to the laboratory for analysis. One field equipment rinsate blank will be collected each day of sampling from decontaminated sampling equipment. Rinsate blanks will be analyzed for all parameters for which the samples collected are analyzed.

A trip blank for volatile organic compounds (VOCs) analysis consists of a contaminant-free matrix in the appropriate sample container with preservative. This sample is generated by the container preparer, transported to the field (staying with the sample containers continually), and returned without being opened. The trip blank provides a measure of potential positive interferences introduced by sample preservation, transportation, storage, and analysis. Since analysis for VOCs is not part of this sampling program, trip blanks will not be required.

8.3.2 Precision Control Samples (Field Duplicate Samples)

Analysis of duplicate samples provides information concerning the precision of the sampling and analytical processes. Two samples are taken in the field at the same location so that they represent the sample matrix as closely as possible. The results obtained from the measurement of field duplicate samples reflect the total precision of the sampling and analytical procedures and the variability in obtaining samples that are intended to represent one sampling point. One field duplicate sample will be collected for every 20 soil samples collected. Duplicate samples will be analyzed for all parameters for which the corresponding sample pairs are analyzed.

8.4 Quality Control Laboratory Samples

8.4.1 Contamination Control Samples (Method Blanks)

For each batch of samples processed, method blanks (using ASTM Type I to IV water and reagents) are carried throughout the sample preparation and analytical processes. These blanks are used to assess whether samples are being contaminated in the laboratory. Method blanks are specific for each analytical method and for each batch of 20 or fewer samples.

8.4.2 Accuracy and Precision Control Samples (Matrix Spike Samples)

A matrix spike and a matrix spike duplicate sample are created when the analyst adds a known amount of an analyte of interest into a portion of an environmental sample. The data from a matrix spike provide information on the matrix effects of a particular sample. One matrix spike sample and duplicate will be collected for every 20 soil samples collected. Matrix spike samples will be analyzed for all parameters for which the corresponding sample pairs are analyzed for.

8.5 Data Validation and Usability Review

All analytical data will be subject to data validation and review of usability, including an evaluation of data quality parameters, false negatives, and detection limits. The primary purpose of the validation and review will be to determine if any qualitative and quantitative problems are evident from the laboratory QA/QC data, not to verify whether the laboratory-reported QA/QC information is correct. Specific performance criteria to be used for this review will follow the procedures specified in Appendix A.2 of the Tier I Work Plan.

In addition to the general validation process described in Appendix A.2 of the Tier I Work Plan, all analytical data will be subject to data validation using criteria set forth in *USEPA Region II Standard Operating Procedures HW-23 Revision 0* appropriate for PCB-only analyses. The primary purpose of this review is to determine if any quantitative problems are evident from the laboratory QA/QC data, not to verify whether the laboratory reported QA/QC information is correct. Specific performance criteria to be used for this review will follow the respective analytical method.

8.6 Data Management

All analytical data generated during this investigation will be formatted into a usable medium, such as a computer data base program. The data base will contain the analytical results received from the laboratory such as the sample identifier, the analytical parameter, the reported result and any necessary qualifier, the method detection limit and any qualifier

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associated with it, and the measurement units. It will also contain additional information on the sampling date, the sample medium, the sampling method, and the types of analyses to be performed on the sample. This data base will allow the generation of summary tables, graphs, and figures. It will also maintain the integrity and accountability of the original data. A copy of ENVIRON's electronic data deliverable format specifications is provided in Appendix A.2 of the Tier I Work Plan.

8.7 Approach to QAPP Implementation

This section provides the approach taken by the project team to meet regulatory and client requirements. It outlines and provides details of the requirements for (1) organizational structure, functional responsibilities, levels of authority, and lines of communication; (2) training of personnel responsible for performance of work activities affecting quality; and (3) procurement requirements.

8.7.1 Organization and Responsibilities

The organizational strucmre of the project team, functional responsibilities, levels of authority, and lines of communication are described below. The individuals comprising the project team will be identified for removal action activities by CDE, Dana and ENVIRON.

Project Coordinator

The project coordinator reports to CDE and Dana and will serve as project director and overall technical reviewer of project deliverables. The project coordinator's responsibilities include review of work plans, schedules, costs, technical performance, and coordination of project activities with the project manager to achieve the objectives of the removal action and communication with both CDE and Dana personnel and relevant regulatory agencies.

Project Managers

Project managers report to the project coordinator and will be responsible for certain portions of the Work Plan activities, such as the organization, coordination, and supervision of various project activities and the associated field work. Their responsibilities include communications with CDE, Dana and regulatory agency personnel, supervision of subcontractors, participation in report preparation and technical review, and tracking of schedules and budgets. Each project manager is responsible for ensuring conformance with standard operating procedures, including the overall quality of field and office activities. Project managers will oversee all

aspects of project data collection and reporting, and development of this Work Plan, including data collection and reporting requirements that are consistent with the requirements specified in the AOC.

Field Staff

Field staff report directly to the project managers and are responsible for assisting the project managers with the organization, coordination, and supervision of the various field tasks, including oversight of subcontractors.

Project Quality Assurance Manager

The project quality assurance manager reports directly to the project managers and is responsible for implementing the QAPP and addressing all matters relating to the Quality Assurance/Quality Control (QA/QC) needs of the removal action. In addition, the project quality assurance manager conducts audits to ensure that work activities comply with this QAPP.

Site Health and Safety Officer

The site health and safety officer reports directly to the project managers and is responsible for implementing the HASP.

Field Subcontractors

Field subcontractors report to the project managers and will consist primarily of surveyors, waste management and construction contractors. Field subcontractors are responsible for documentation of initial Property conditions, excavation and construction activities and restoration of each Property to initial conditions or equivalent value.

Laboratory

The laboratory reports directly to the project quality assurance manager and will be responsible for implementation of appropriate sections of the QAPP and achieving the data quality objectives for analytical work in this investigation.

The organizational structure and the responsibility assignments are such that quality is achieved and maintained by those who have been assigned responsibility for performing work, and quality achievement is audited and verified by persons or organizations not directly responsible for performing the work. The organizational responsibilities reflect an integration of the technical, administrative, quality control, and quality assurance

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functions such that the QA program elements are disseminated throughout the entire organizational structure and are an integral part of daily operations. In situations where organizations such as subcontractors, suppliers, consultants and laboratories are involved in the execution of activities governed by the requirements of this QAPP, the responsibility and authority of such organizations will be clearly established and documented.

8.7.2 Training

Field staff and office personnel performing quality control activities will be trained on the following:

- Objectives of the project;
- The contents of this QAPP;
- The procedures described in this Work Plan; and
- Individual job responsibilities and authority.

8.7.3 Procurement Requirements

Procurement of equipment and services will be made in accordance with project standards outlined in the Work Plan, QAPP and HASP to assure that each prospective supplier or subcontractor understands the requirements. Applicable regulatory requirements and other requirements that may be necessary to ensure adequate quality will be included or referenced in the documents for procurement of material, equipment and services.

9.0 HEALTH AND SAFETY PLAN (HASP)

ATC Associates prepared a site-specific HASP for ENVIRON to provide job safety and security in compliance with 29 CFR 1910.120; this HASP was included as Appendix E to the Tier I Work Plan. Updated sections to the HASP are provided as Appendix C. Specific elements addressed in this HASP include:

- General information including site name, address, contact, background, work objectives, names of personnel who will be on-site, and names of key personnel responsible for site safety;
- Potential physical, chemical, and biological hazards;
- A brief hazard evaluation;
- Descriptions of appropriate levels of personal protection and decontamination;
- · Air Monitoring Plan and dust control measures; and
- Emergency services information.

All ENVIRON personnel who will be conducting sampling and removal action oversight activities at the site under this program will be required to read and sign the HASP. All contractors performing work pursuant to this Work Plan will be required to prepare a HASP that meets the minimum requirements set forth in the HASP included in the Tier I Work Plan as updated by Appendix C.

If performance of any subsequent phase of the work required by the AOC requires alteration of the HASP, proposed amendments to the HASP will be submitted to USEPA for review and approval.

10.0 COMMUNITY RELATIONS

CDE and Dana will cooperate with USEPA in providing information to the public relating to the work required by the AOC. If requested by USEPA, CDE and Dana will participate in the preparation of appropriate information to be disseminated to the public; participate in public meetings which may be held or sponsored by USEPA to explain activities at the Tier II Properties; and provide a suitable location for public meetings, as needed.

All documents submitted to USEPA in the course of implementing the AOC will be available to the public unless identified as confidential by CDE and/or Dana pursuant to 40 CFR Part 2, Subpart B, and determined by USEPA to merit treatment as confidential business information in accordance with applicable law. In addition, USEPA may release all such documents to NJDEP, and NJDEP may make those documents available to the public unless CDE and/or Dana conforms with applicable state law and regulations regarding confidentiality. CDE and/or Dana will not assert a claim of confidentiality regarding any monitoring or hydrogeologic data, any information specified under Section 104(e)(7)(F) of CERCLA, or any other chemical, scientific or engineering data relating to the Work performed hereunder.

A copy of the removal action schedule and an information sheet will be distributed to each residence prior to implementation of excavation activities. The information sheet will provide the following information:

- Identify the project manager, contractors, subcontractors and other personnel (e.g. USEPA representatives) authorized to access restricted work areas;
- Describe site preparation procedures to be taken on each property prior to excavation and restoration work;
- Describe the excavation and restoration procedures;
- Identify potential hazards and describe measures to mitigate these hazards; and
- Describe the proposed restoration plan.

11.0 WORK PLAN IMPLEMENTATION

11.1 Project Schedule

A schedule has been developed for implementation of the activities described in this Work Plan in accordance with the requirements of the AOC. The proposed project schedule is provided in Figure 11-1. This schedule will be refined based on input from the selected remediation contractor (see Section 11.2).

11.2 Coordination of Contractors

11.2.1 Contract Documents

Following submittal of this Work Plan to USEPA, removal action bid documents will be prepared for the implementation of the activities defined in this Work Plan. These bid documents will include all detailed drawings, restoration plans and specifications necessary to solicit bids for implementing the work. In addition, these documents will establish contractor performance standards for the removal action to ensure achievement of cleanup goals.

11.2.2 Contractor Selection

Potential contractors will be requested to submit proposals to implement the Work Plan. Based on the evaluation of bids, contractors will be selected; USEPA will be notified of this selection in accordance with the requirements of the AOC. USEPA will also be notified of the name and qualifications of any contractor or subcontractor proposed to perform work under the AOC at least ten (10) days prior to commencement of such work.

A copy of the AOC will be provided to each contractor and subcontractor approved and retained to perform the work required by the AOC. All contracts or subcontracts entered into for work required under the AOC will include provisions stating that such contractors or subcontractors, including their agents and employees, shall perform activities required by such contracts or subcontracts in compliance with the AOC and all applicable laws and regulations.

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11.2.3 Contractor Health and Safety Plan

The HASP developed by the excavation contractor will meet the minimum requirements set forth in the HASP included in the Tier I Work Plan as updated by Appendix C. The contractor's HASP will be available on-site at all times during implementation of this Work Plan.

11.3 Reporting

11.3.1 Progress Reporting

During the implementation of the AOC, written progress reports will be provided to USEPA every two (2) weeks, in accordance with Paragraphs 50 and 51 of the AOC, which fully describe all actions and activities undertaken pursuant to the AOC.

11.3.2 Final Reporting

Within thirty (30) days after completion of all activities required under the AOC and the receipt of all validated sampling results, a Final Report summarizing the actions taken to comply with the AOC will be submitted for USEPA review and approval. The Final Report will conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP, entitled "OSC Reports." The Final Report will include:

- a. a synopsis of all Work performed under the AOC;
- b. a detailed description of all USEPA-approved modifications to this Work Plan which occurred during the performance of the Work required under the AOC;
- c. a listing of quantities and types of materials removed from the Tier II Properties or handled at the Tier II Properties;
- d. a discussion of removal and disposal options considered for those materials;
- e. a listing of the ultimate destination of those materials;
- f. a presentation of the analytical results of all sampling and analyses performed, including QA/QC data and chain of custody records;
- g. accompanying appendices containing all relevant documentation generated during the work (e.g., manifests, invoices, bills, contracts, and permits);

11-2

- h. an accounting of expenses incurred at the Tier II Properties; and
- i. the following certification signed by a person who supervised or directed the preparation of the Final Report:

I certify that the information contained in and accompanying this certification is true, accurate, and complete.

11.4 Record Keeping

Upon request, CDE and Dana will provide USEPA with access to all records and documentation related to the conditions at the Tier II Properties, hazardous substances found at or released at the Tier II Properties, and the actions conducted pursuant to the AOC except for those items, if any, subject to the attorney-client or work product privilege. Nothing herein will preclude CDE and/or Dana from asserting a business confidentiality claim pursuant to 40 C.F.R. Part 2, Subpart B. All data, information and records created, maintained, or received by CDE and/or Dana or their contractor(s) or consultant(s) in connection with implementation of the Work under the AOC, including, but not limited to, contractual documents, invoices, receipts, work orders and disposal records will, without delay, be made available to USEPA upon request, subject to the same privileges specified above in this paragraph. USEPA will be permitted to copy all such documents. CDE and Dana will submit to USEPA upon receipt the results of all sampling or tests and all other technical data generated in connection with the implementation of the AOC.

02-5840D.1\PRIN_WP\10856v1.WPD

11-3

TABLES

Table 2-1						
	Summary of Verification Sampling Data					
Property	Sample ID	Depth (inches)	Total PCB Concentration (mg/kg)			
U	U-OA-02-DS-02(D)	6-12	6.0475			
U	U-OA-02-DS-03-S	12-18	6.025			
Ŭ	U-OA-01-DS-02	6-12	1.0375			
Ŭ	U-OA-03-DS-02	6-12	0.809			
U	U-OA-04-DS-02	6-12	0.5905			
W	W-OA-02-DS-03	12-18	0.319			
W	W-OA-01-DS-03	12-18	0.1795			
W	W-OA-03-DS-03	12-18	0.1395			
X	X-OA-04-DS-02	6-12	5.62			
X	X-OA-04-DS-03-S	12-18	1.815			
X	X-OA-05-DS-01(D)	0-6	0.83425			
X	X-OA-12-DS-01	0-6	0.732			
X	X-OA-06-DS-01	0-6	0.6915			
X	X-OA-07-DS-01	0-6	0.662			
X	X-OA-03-DS-02	6-12	0.63			
X	X-OA-11-DS-01	0-6	0.5805			
X	X-OA-02-DS-02	6-12	0.451			
X	X-OA-08-DS-01	0-6	0.431			
X	X-OA-13-DS-01	0-6	0.359			
X	X-OA-09-DS-01	0-6	0.311			
X	X-OA-10-DS-01	0-6	0.2805			
X	X-OA-01-DS-02	6-12	0.1715			
AA	AA-OA-01-DS-02	6-12	0.3995			
AA	AA-OB-01-DS-02	6-12	0.36			
BB	BB-OA-03-DS-01	0-6	1.68			
BB	BB-OC-01-DS-02	6-12	0.94			
BB	BB-OC-02-DS-01	0-6	0.865			
BB	BB-OC-03-DS-01	0-6	0.699			
BB	BB-OA-02-DS-02	6-12	0.589			
BB	BB-OA-01-DS-02	6-12	0.459			
BB	BB-OB-01-DS-02(D)	6-12	0.4095			
BB	BB-OB-02-DS-01	0-6	0.3205			
CC	CC-OA-05-DS-01	0-6	0.5905			
CC	CC-OB-02-DS-01(D)	0-6	0.365			
CC	CC-OA-04-DS-01	0-6	0.17 .			
CC	CC-OA-03-DS-02	6-12	0.1395			
CC	CC-OA-02-DS-02	6-12	0.0995			
CC	CC-OB-01-DS-02	6-12	0.098			
CC	CC-OA-01-DS-02	6-12	0.0925			
DD	DD-OA-05-DS-01	0-6	74			
DD	DD-OA-05-DS-02	6-12	17.15			
DD	DD-OA-05-DS-03-S	12-18	9.9			
DD	DD-OA-03-DS-01	0-6	4.3 U			
DD	DD-OA-03-DS-01-S	0-6	4.3 U			
DD	DD-OA-02-DS-01	0-6	4.1 U			
DD	DD-OA-01-DS-01	0-6	2.91			
DD	DD-OA-04-DS-01	0-6	0.86			
DD	DD-OA-02-DS-01-S	0-6	0.79			
DD	DD-OA-04-DS-02	6-12	0.28			

Notes

- 1. Total PCB concentration is the sum of the concentrations for Aroclor 1254 abd 1260. For nondetect results 1/2 the detection limit was used to calculate the total.
- 2. Data are draft and are subject to validation
- 3. (D): The given value is an average of the sample and its field duplicate.

TABLE 3-1 Sample Designation Format				
,	Example: U-0A-01-DS-01-MS			
U-	Property U			
-0A-	Excavation Area A			
-01-	Verification Sample Location			
	Soil Sample Type:			
-DS-	discrete soil sample			
-CS-	composite soil sample			
	Sampling Depth Interval:			
-01-	0 to 6 inches below ground surface (bgs)			
-02-	6 to 12 inches bgs			
-03-	12 to 18 inches bgs			
-MS	QA/QC Designation (as needed; see QAPP for QA/QC			
	designations)			

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		TAB	LE 3-2			
Sample 1	Preservation, C	Containers and	Holding	Times fo	or Specified A	Analyses
						T

Laboratory Analysis	Analytical Method	Matrix	Preservative ⁽¹⁾	Container	Analytical Hold Time
Polychlorinated Biphenyls (PCBs)	SW-846 8082	sediment or soil	none	8 oz. sample jar	14 days
Polychlorinated Biphenyls (PCBs)	SW-846 8082	water	none	1 L amber glass bottle	7 days

Note:

All samples must be cooled to 4°C; additional preservatives as noted.

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	Number of				_	
Property	Samples, n, Used in the Statistical Analysis	Function Distribution	Maximum Detected Concentration (mg/kg)	Mean Concentration (mg/kg)	Standard Deviation (mg/kg)	95% Upper Confidence Level of the Mean (mg/kg)
			CDU001&CDU020, C 012, CDU017, CDU00	DU007, CDU006, CDU0 2, CDU003	018, CDU009, C	DU016, CDU008,
U _.	1 /	NA NA	0.9	0.89	0.00	0.9
erification San	pling: No shallows	samples collected				
U	1 🗸	NA NA_	0.9	0.89	0.00	0.9
				CDW008, CDW004, CDV 3, CDW-020, CDW-002		
W	1 /	NA NA	0.9	0.90	0.00	0.9
erification Sam	pling: No shallow	samples collected				
W	1 🗸	. NA NA	0.9	0.90	0.00	0.9
harcterization S	Sampling: Remove (CDX-005, CDX-015,	, CDX-008, CDX-010,	CDX-006, CDX-003, CI	OX-007, CDX-00	09, CDX-014
X	11 /	Normal Not Log-Normal	1.7	0.89	0.44	L1
erification San	pling: No samples		· · · · · · · · · · · · · · · · · · ·	1		
x	20	Normal Log-Normal	1.7	0.74	0.39	0.9
harcterization S	Sampling: Remove (CDAA-007, CDAA-0	001&CDAA-011, CDA	A-002, CDAA-003, CDA	AA-004, CDAA-	010, CDAA-009, CDAA-
AA	2/	NA NA	0.3	0.27	0.00	0.3
erification San	pling: No shallow:	samples collected			,	
. AA	2 /	NA NA	0.3	0.27	0.00	0.3
harcterization S 08, CDBB-009		CDBB-001&CDBB-	020, CDBB-012, CDB	B-011, CDBB-007, CDB	B-006, CDBB-0	03, CDBB-002, CDBB-
BB	9 1	Normal Log-Normal	1.5	0.92	0.40	1.2
erification San	npling: Remove san	nple BB-OA-03-DS-	01		L	
BB	12	Normal Log-Normal	1.5	0.85	0.39	1.0
		CDCC-012, CDCC-0 6, CDCC-010, CDC		C-009, CDCC-017, CDC	C-008, CDCC-0	02, CDCC-005, CDCC-011
СС	15	NA NA	1.07	1.07	0.00	1.1-1.2
erification San	npling: No samples	L			·	
СС	15 (*	Normal Log-Normal	1.07	0.58	0.34	0.9
harcterization	Sampling: Remove	CDDD-004, CDDD-0	005, CDDD-019			
DD	16	Not Normal Not Log-Normal	ND			
erification San	npling: Remove DD)-0A-0 5 -DS-01, DD-	0A-01-DS-01, DD-OA	-04-08-01		
DD	19	Not Normal Not Log-Normal	0.8	2.69	2.85	3.8
Notes:				Tier II Property was less		

Revised 5/20/99
s:\data\fhe_ham\tier2data\f2datatoepa\epa0599.xls-TierlI_Stat

Page: 1/1

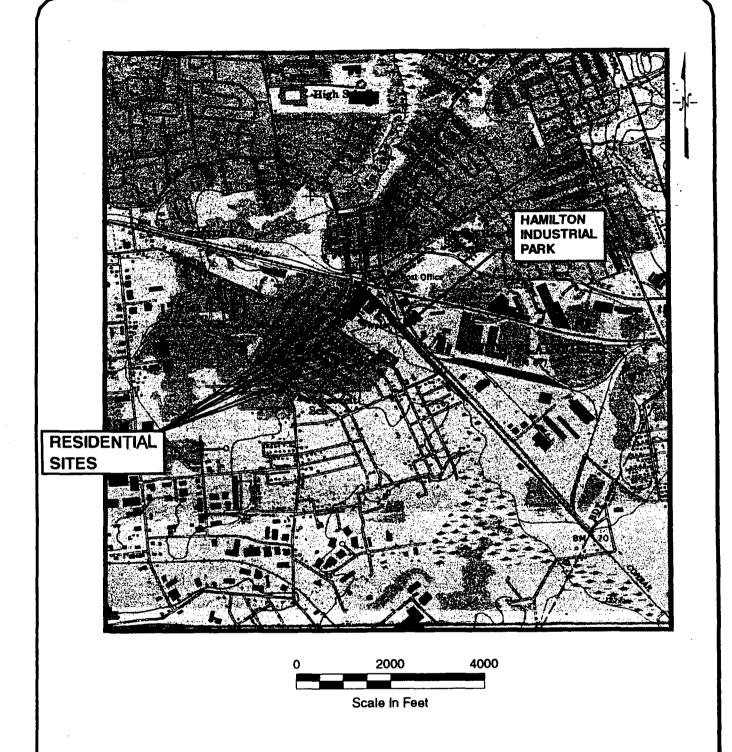
ENVIRON

TABLE 7-1 Resident Contact Information			
Property	Resident	Address	
U	Mickey Mazzei	207 Delmore Avenue	
w	Adam Schechter	403 Hamilton Boulevard	
X	Catherine Turay	115 Delmore Avenue	
AA	Anthony Pellegrino*	346 Hamilton Boulevard	
ВВ	Franklin and Sandra Taylor	511 Hamilton Boulevard	
СС	Thomas Brandt	119 Delmore Avenue	
DD	Vidur & Ambika Budhan	229 Delmore Avenue	

^{*} Owner of Property does not reside at Property.

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FIGURES



SOURCE: USGS TOPOGRAPHIC QUADRANGLE PLAINFIELD, NEW JERSEY; 1955 PHOTOREVISED 1981.

ENVIRON

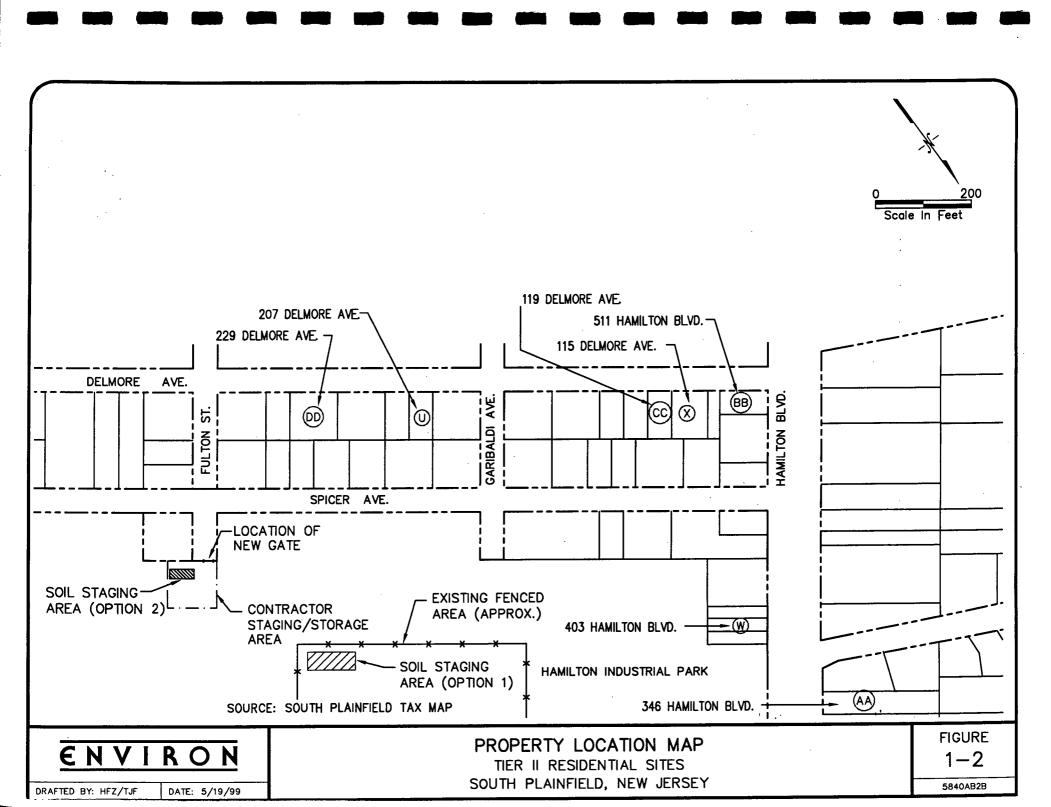
Drafted By: HFZ/COG

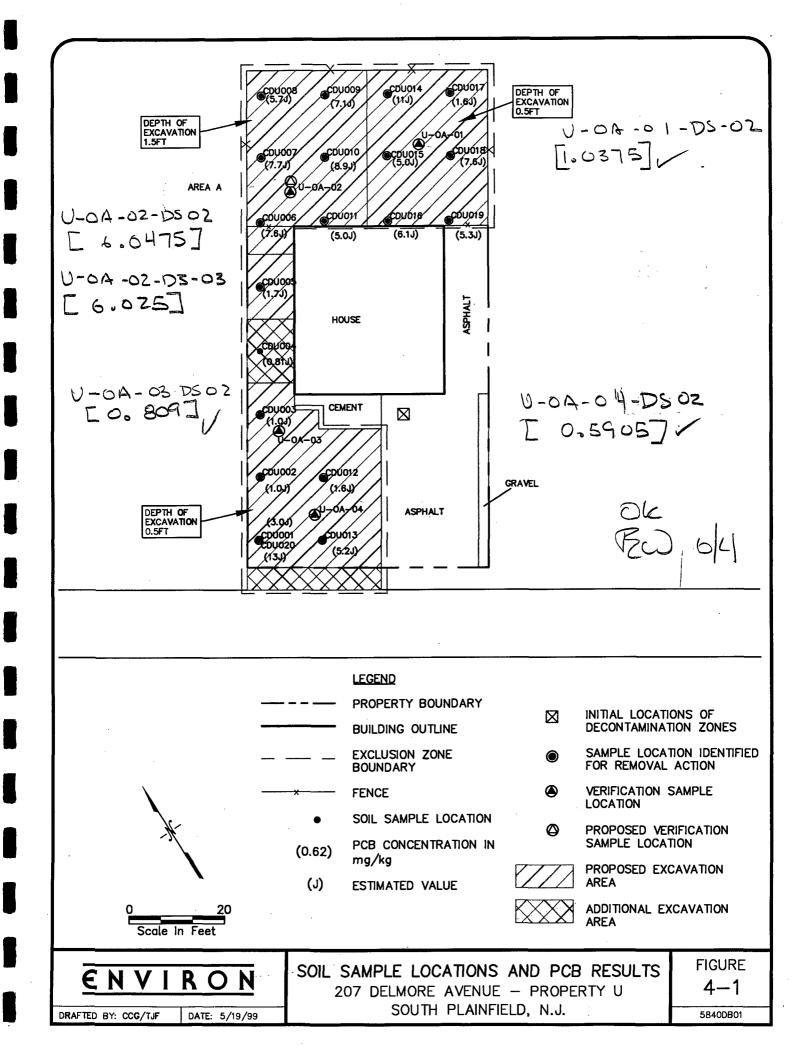
SITE LOCATION MAP
TIER II RESIDENTIAL SITES
SOUTH PLAINFIELD, NJ

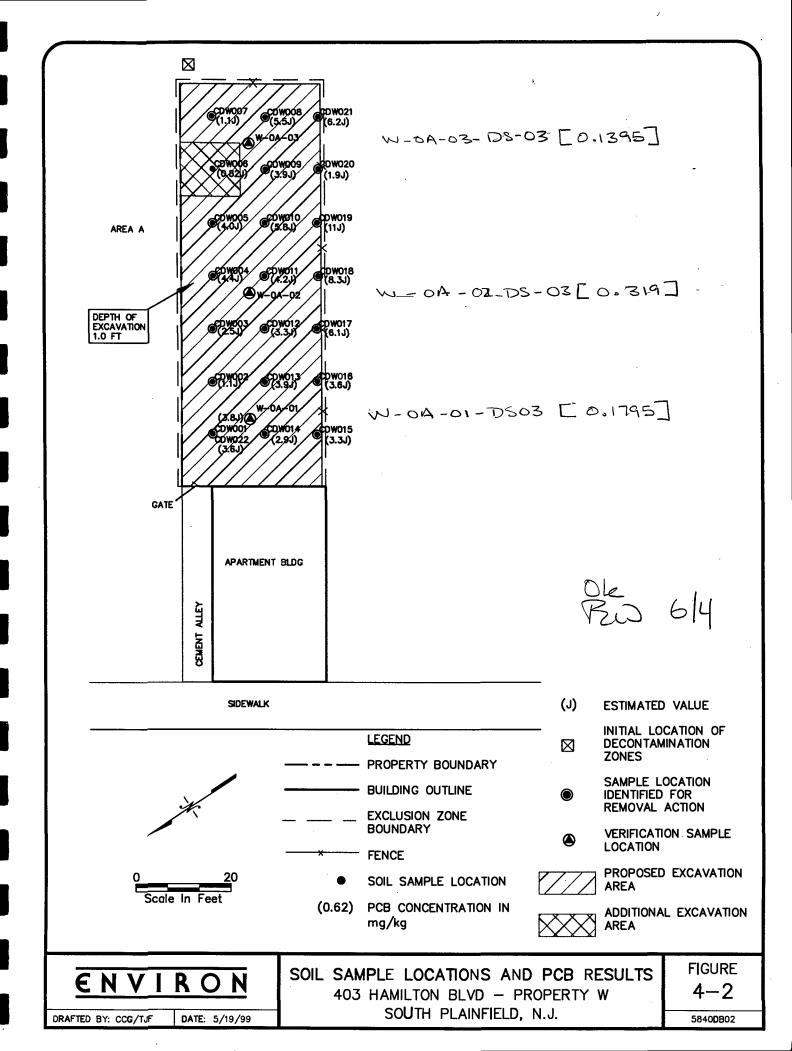
Figure

1-1

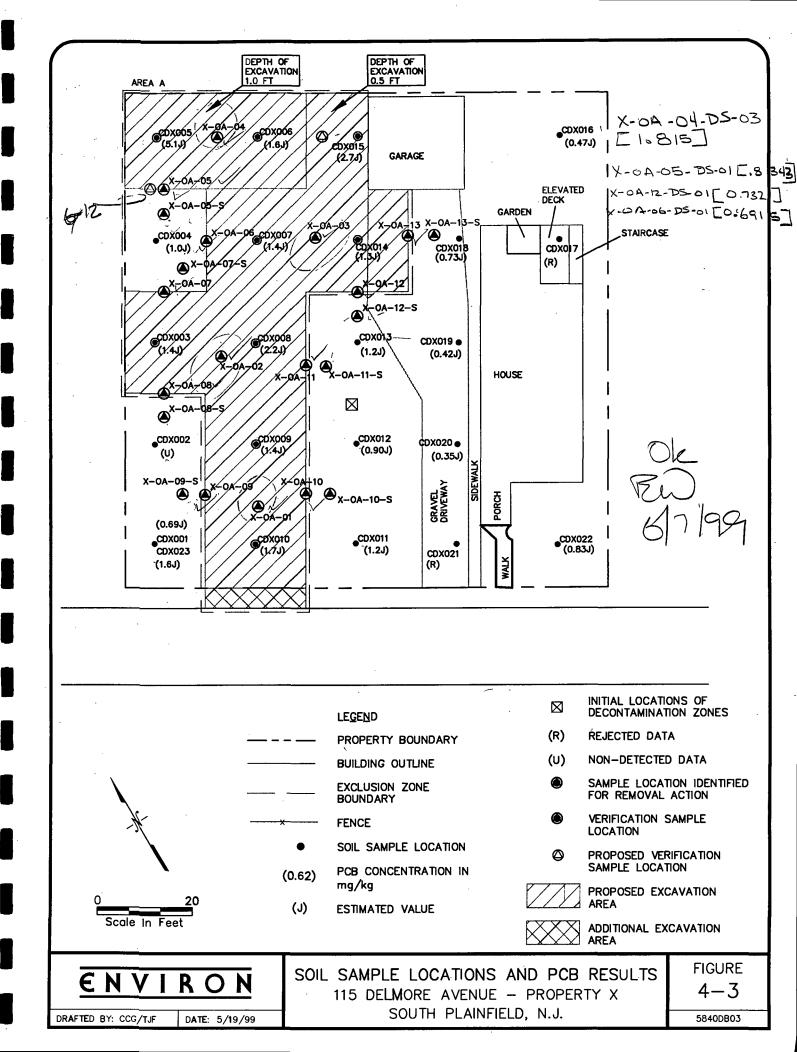
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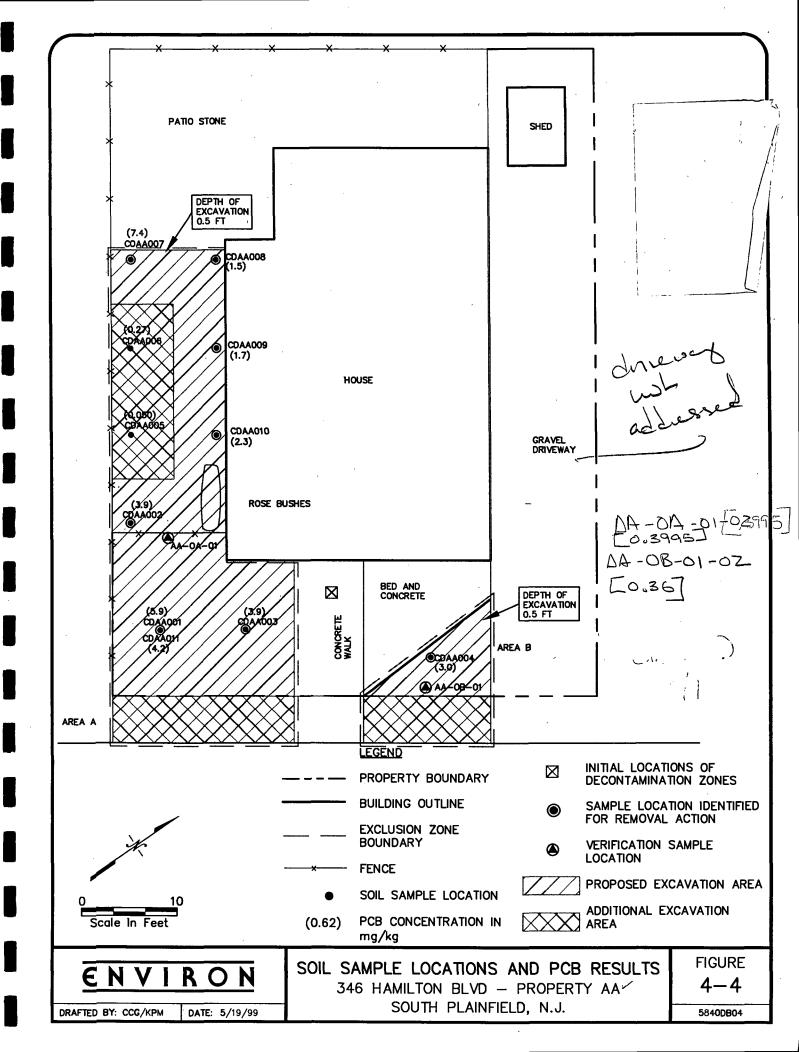






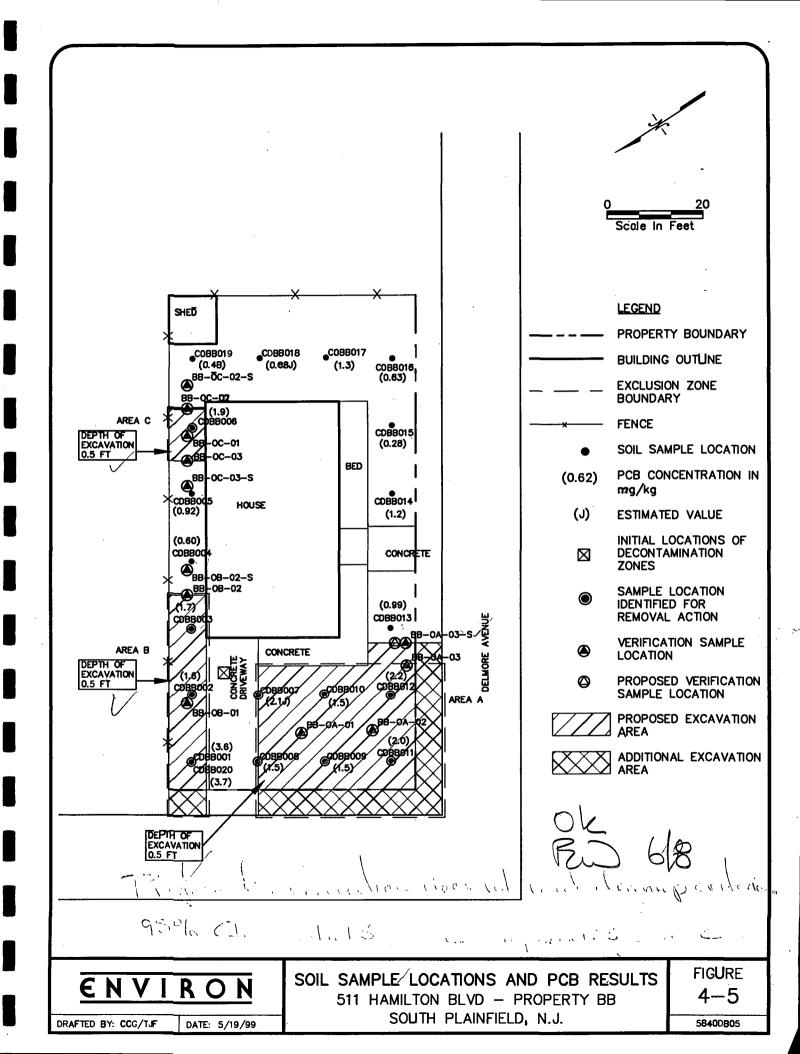
 20×51 1020 21×42 882 798 40×21 840 3540/900

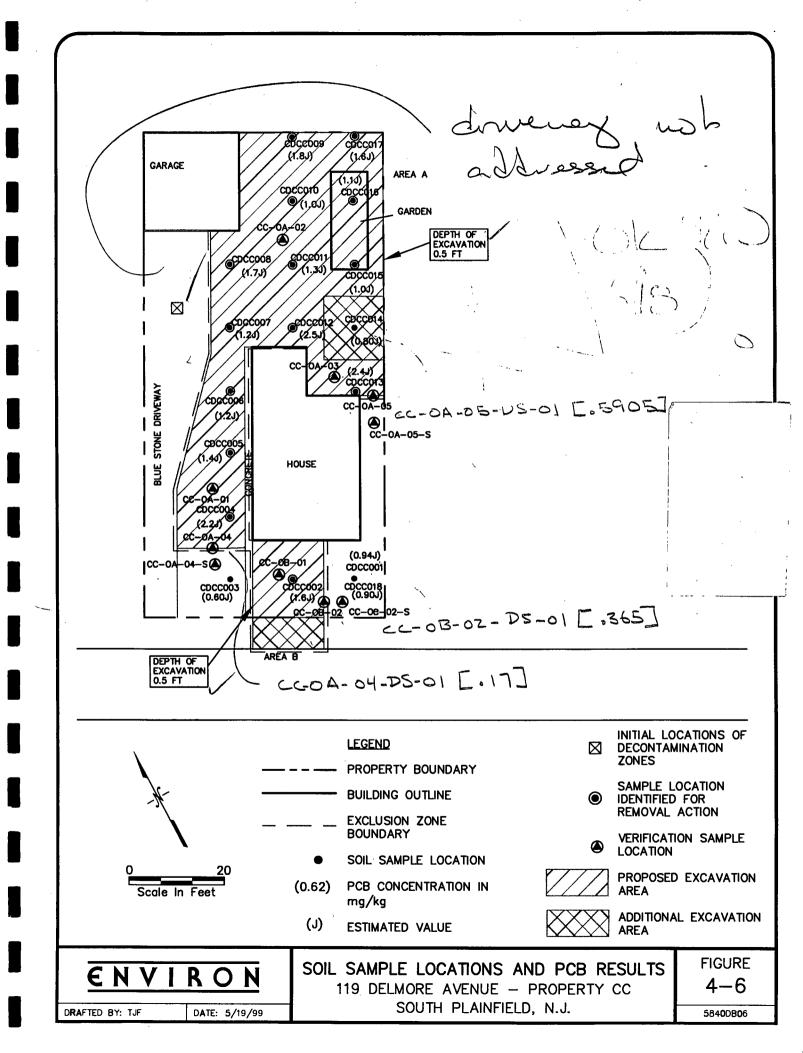


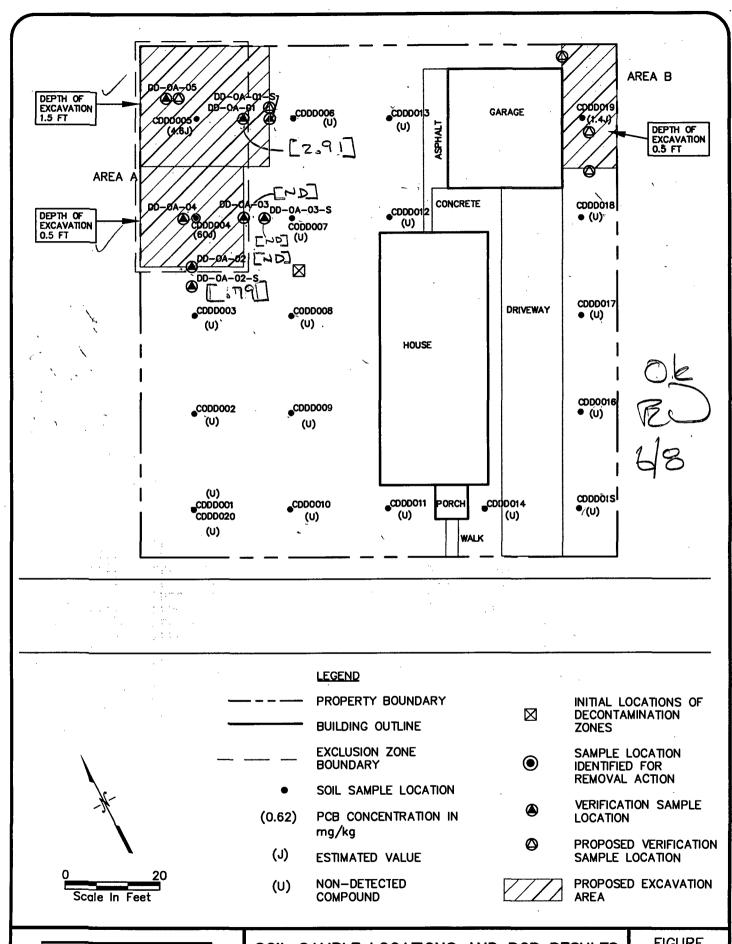


BB 04 BB 05

BB 13 thru BB19







ENVIRON

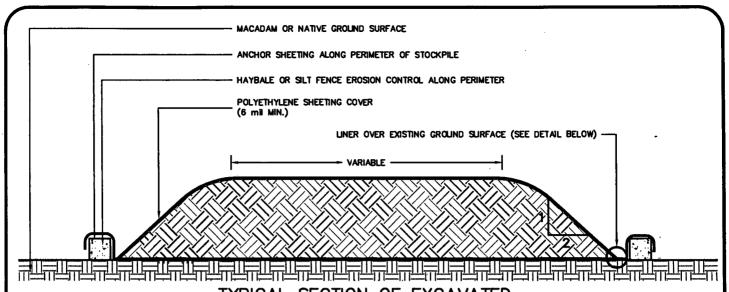
DATE: 5/19/99

DRAFTED BY: CCG/TJF

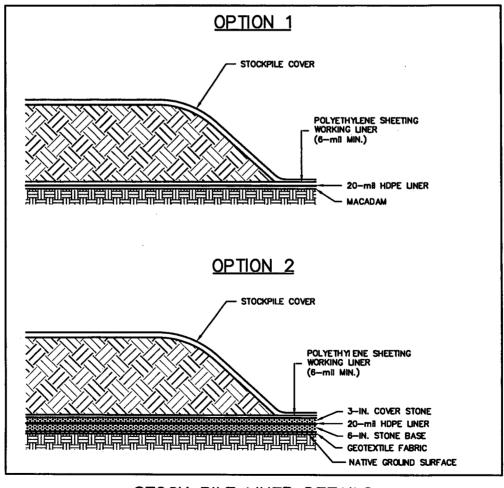
SOIL SAMPLE LOCATIONS AND PCB RESULTS
229 DELMORE AVENUE — PROPERTY DD
SOUTH PLAINFIELD, N.J.

FIGURE 4-7

5840DB7A



TYPICAL SECTION OF EXCAVATED SOIL STOCKPILE NOT TO SCALE



STOCK PILE LINER DETAILS NOT TO SCALE

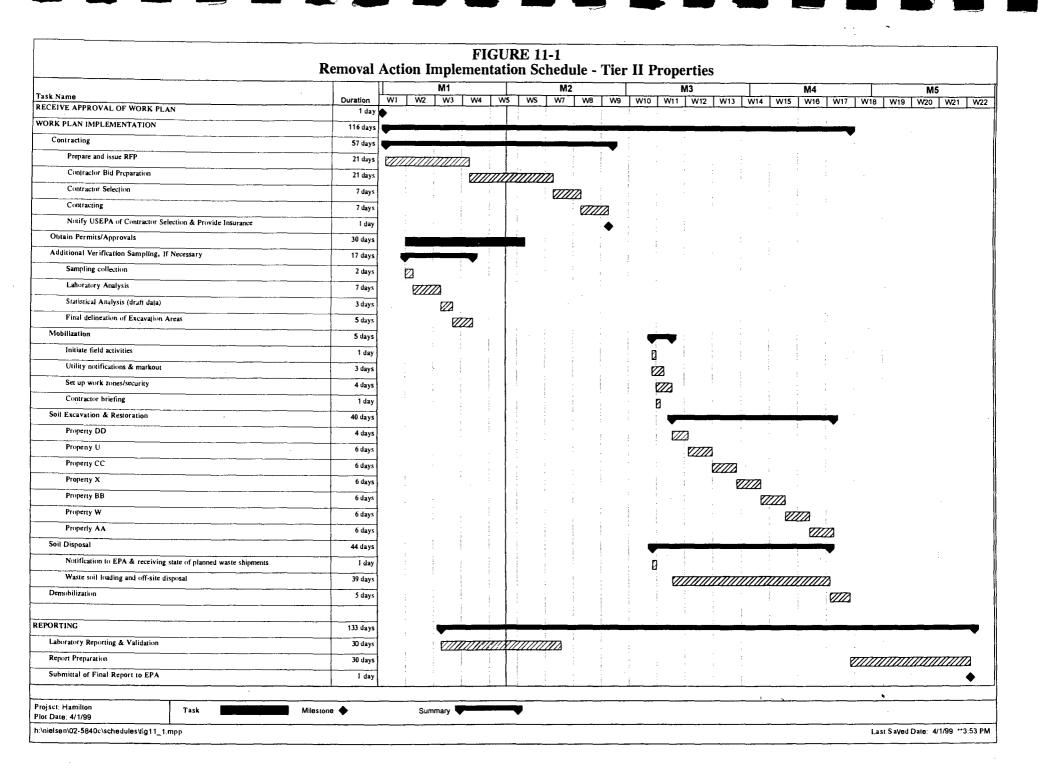
ENVIRON

SOIL STAGING AREA DESIGN

FIGURE 5-1

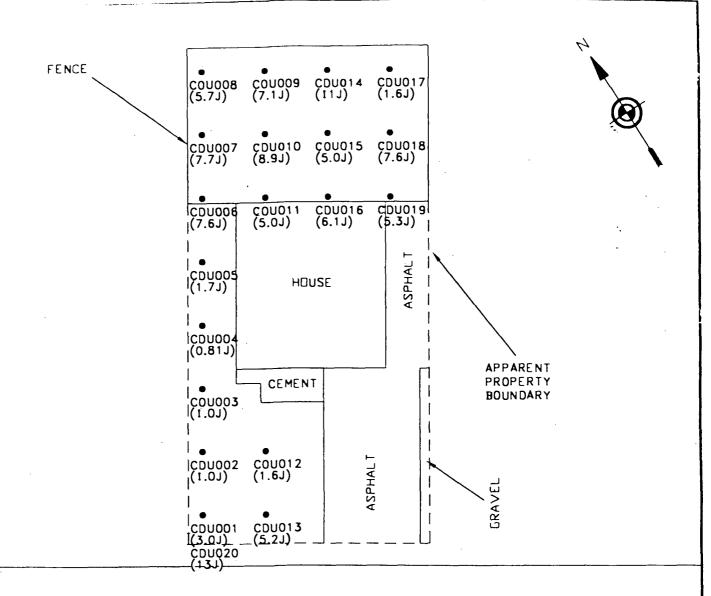
DRAFTED BY: KPM/TJF DATE: 5/19/99

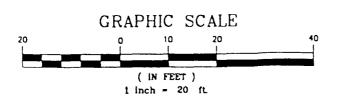
5840DD01



APPENDIX A

USEPA Soil Sampling Locations and Results





LEGEND
(0.62) PCB (POLYCHLORINATED BIPHENYLS)

CONCENTRATION IN mg/kg
(J) ESTIMATED VALUE

FIGURE 6 - SOIL SAMPLE LOCATIONS
AND TOTAL PCB RESULTS

CORNELL - DUBILIER ELECTRONICS - PROPERTY U

RESIDENTIAL SAMPLING - APRIL 21, 1998

SOUTH PLAINFIELD, N.J.

US EPA REMOVAL ACTION BRANCH
SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
CONTRACTS 68-183-0019

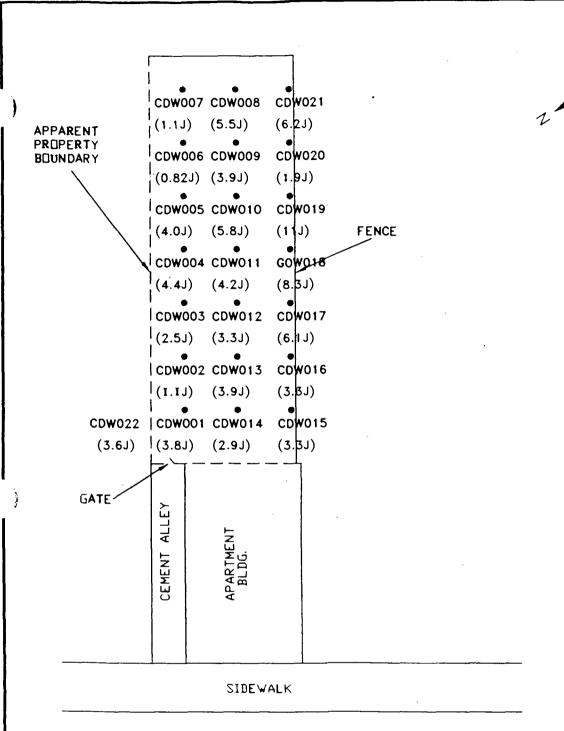
W SICK

Roy F. Weston, Inc. FEDERAL PROGRAMS DIVISION

DRAWN BY : J. HAMPTON JR.

EPA TASK MONITOR: E. WLSON
START PROJECT MANAGER: M MANNKOPF

IN ASSOCIATION WITH PRC ENVIRONMENTAL MANAGEMENT, INC., C.C. JOHNSON & MALHOTRA, P.C., RESOURCE APPLICATIONS, INC., R.E. SARRIERA ASSOCIATES, AND ORD EMMONUMENTAL SERMICES INC.

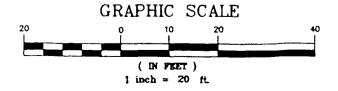


LEGEND

(0.62) PCB (POLYCHLORINATED BIPHENYLS)

CONCENTRATION IN mg/kg

(J) ESTIMATED VALUE



WESTERN

Roy F. Weston, Inc. FEDERAL PROGRAMS DIVISION

IN ASSOCIATION WITH PRC ENVIRONMENTAL MANAGEMENT, INC., C.C., JOHNSON IN MALHOTRA, P.C., RESDURCE APPLICATIONS, INC.

CORNELL - DUBILIER ELECTRONICS - PROPERTY W
RESIDENTIAL SAMPLING - APRIL 21, 1998
SOUTH PLAINFIELD, N.J.
US EPA REMOVAL ACTION BRANCH

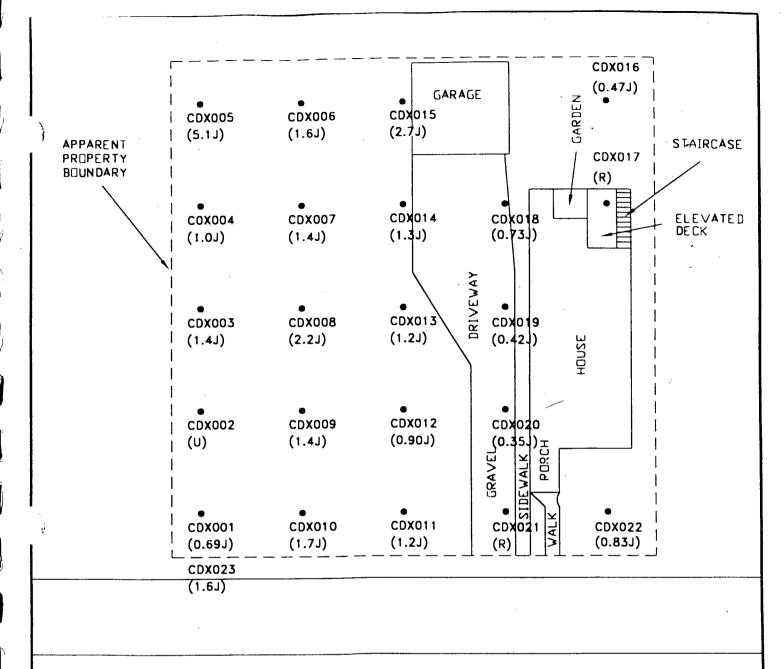
US EPA REMOVAL ACTION BRANCH
SUPERIMO TECHNICAL ASSESSMENT AND RESPONSE TEAM
CONTRACTS 80-85-0019

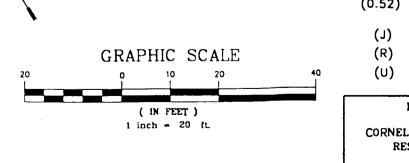
FIGURE 8 - SOIL SAMPLE LOCATIONS
AND TOTAL PCB RESULTS

DRAWN BY : J. HAMPTON JR.

EPA TASK MONITOR: E. WILSON

START PROJECT MAMACED. M. MAHAROPE





LEGEND PCB (POLYCHLORINATED BIPHENYLS) (0.52)CONCENTRATION IN mg/kg

- ESTIMATED VALUE
- REJECTED DATA
- NON-DETECTED DATA

FIGURE 9 - SOIL SAMPLE LOCATIONS AND TOTAL PCB RESULTS CORNELL - DUBILIER ELECTRONICS - PROPERTY X RESIDENTIAL SAMPLING - APRIL 21, 1996 SOUTH PLAINFIELD, N.J.

> US EPA REMOVAL ACTION BRANCH SUPCREUND TECHNICAL ASSESSMENT AND RESPONSE TEAM CORTRACT# 8#- NO-0019

Roy F. Weston, Inc. FEDERAL PROGRAMS DIVISION

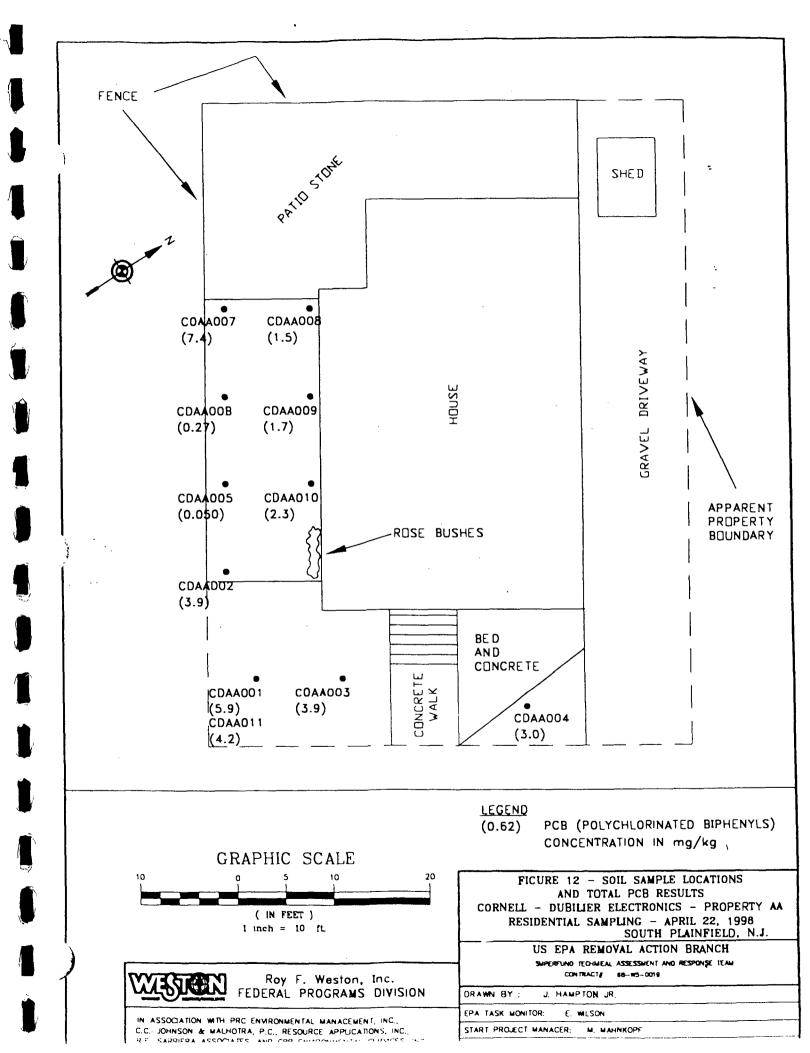
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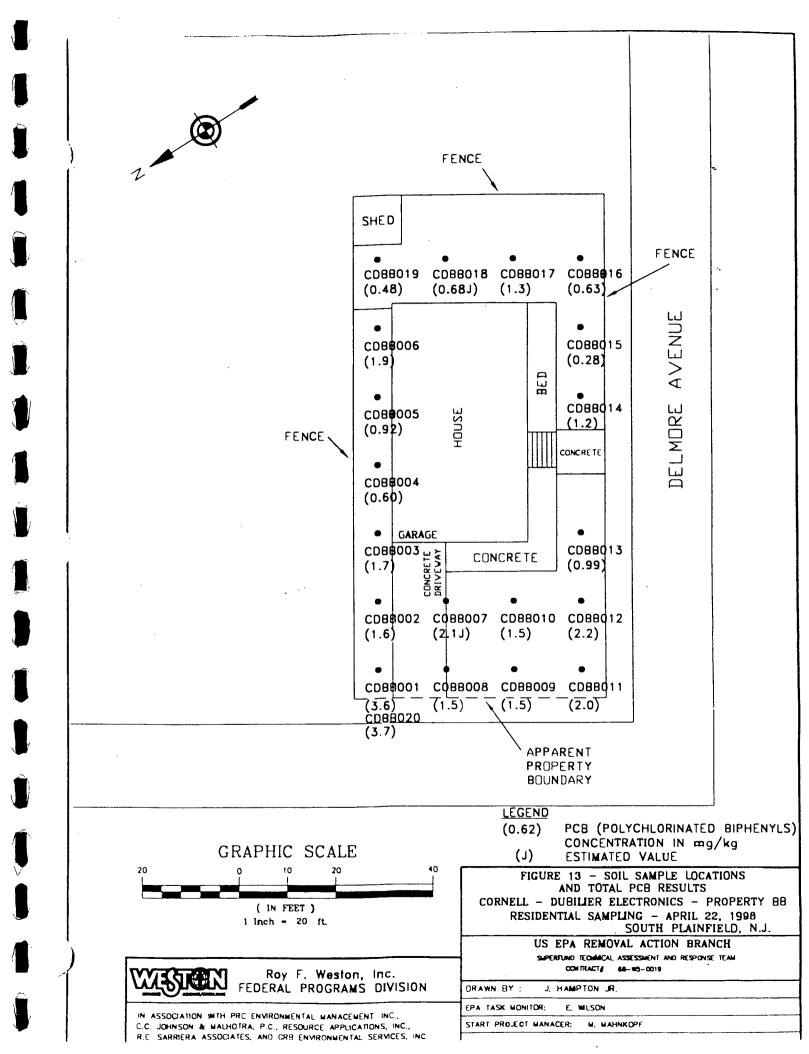
C.C. JOHNSON & MALHOTRA, P.C., RESOURCE APPLICATIONS, INC. RE SARRIERA ASSOCIATES, AND CRB ENVIRONMENTAL SERVICES, INC.

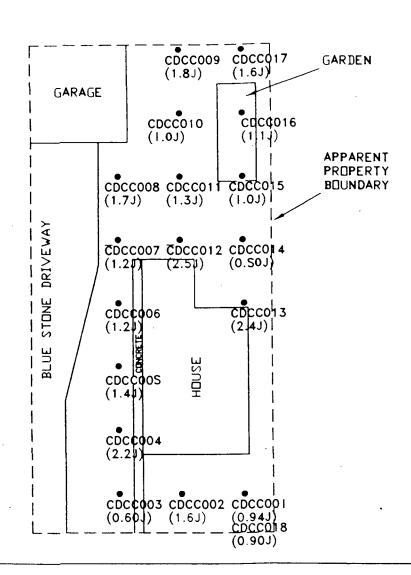
DRAWN BY : J. HAMPTON JR.

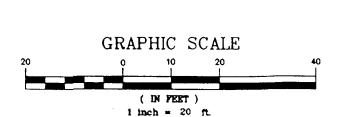
EPA TASK MONITOR: E. WILSON

START PROJECT MANACER: M. MAHNKOPF









LEGEND

(0.62) PCB (POLYCHLORINATED BIPHENYLS)

CONCENTRATION IN mg/kg
(J) ESTIMATED VALUE

FIGURE 14 - SOIL SAMPLE LOCATIONS
AND TOTAL PCB RESULTS

CORNELL - DUBILIER ELECTRONICS - PROPERTY CC
RESIDENTIAL SAMPLING - APRIL 23, 199B
SOUTH PLAINFIELD, N.J.

US EPA REMOVAL ACTION BRANCH SUPCHTURO TECHNICAL ASSESSMENT AND RESPONSE TEAM COMIRACT# SB-W5-001#

W SIEN

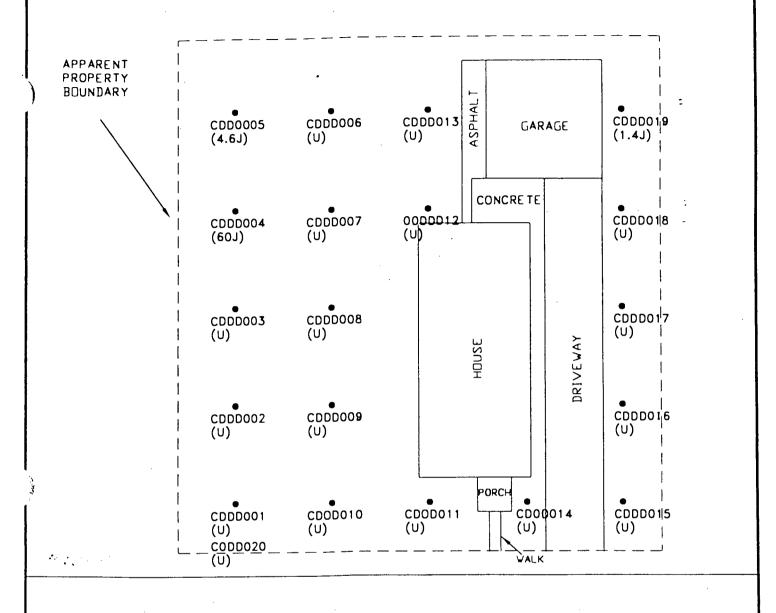
Roy F. Weston, Inc. FEDERAL PROGRAMS DIVISION

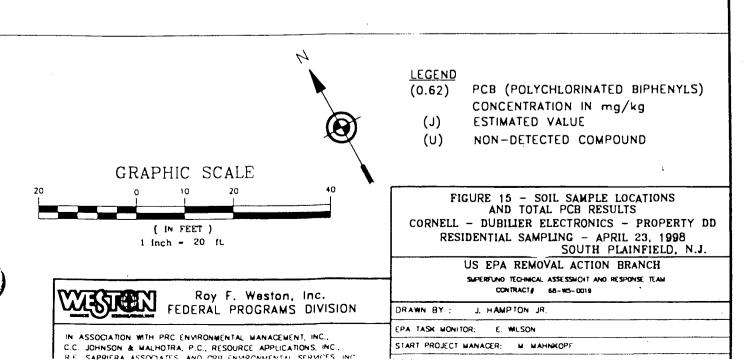
DRAWN BY: J. HAMPTON JR.

IN ASSOCIATION WITH PRC ENVIRONMENTAL MANAGEMENT, INC.,

EPA TASK MONITOR: E. WILSON

START PROJECT MANAGER: M MAHNKOP





APPENDIX B

Property Access Agreements

CONSENT FOR ACCESS AGREEMENT

Name of the Owner:	FRANK TAYLOR
Address:	511 Hamilton Blvd.
	So Plainfield, NJ.07080
Telephone:	908-753-9854
Description of Property:	50×100

I consent to employees, contractors, subcontractors, agents, or other authorized representatives of ENVIRON (collectively referred to as "ENVIRON") entering and having continued access to my property for the purpose of: (1) collecting soil samples relating to the investigation of subsurface contamination in the area; (2) surveying of the property; (3) establishing a "baseline" record of existing conditions including plant material, structures, etc. by written inventory and photographs; (4) removal of contaminated soil as necessary; and (5) replacement of the soil removed with clean soil and restoration of the property to the original baseline conditions established in (3).

I realize that these actions by ENVIRON are undertaken in conjunction with an action being conducted by the U.S. Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), 42 U.S.C. §9601 et seq.

This written permission is given by me voluntarily with knowledge of my right to refuse and without threats or promises of any kind.

I hereby certify that I am the owner or representative of the owner of the above-referenced property which will be affected by this Agreement. I am authorized to enter into this agreement.

3-24-99 Date

(lot size, type of structures

etc.)

Signature

Name (PRINT)

Name of the Owner:	ADAM Scheckter
Address:	4036 HAMilton blub
	Soplainliek NJ 07080
Telephone:	701-769-6830
Description of Property: (lot size, type of structures	

I consent to employees, contractors, subcontractors, agents, or other authorized representatives of ENVIRON (collectively referred to as "ENVIRON") entering and having continued access to my property for the purpose of: (1) collecting soil samples relating to the investigation of subsurface contamination in the area; (2) surveying of the property; (3) establishing a "baseline" record of existing conditions including plant material, structures, etc. by written inventory and photographs; (4) removal of contaminated soil as necessary; and (5) replacement of the soil removed with clean soil and restoration of the property to the original baseline conditions established in (3).

CONSENT FOR ACCESS AGREEMENT

I realize that these actions by ENVIRON are undertaken in conjunction with an action being conducted by the U.S. Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), 42 U.S.C. §9601 et seq.

This written permission is given by me voluntarily with knowledge of my right to refuse and without threats or promises of any kind.

I hereby certify that I am the owner or representative of the owner of the above-referenced property which will be affected by this Agreement. I am authorized to enter into this agreement.

Signature

Name (PRINT)

F" DEIVED DATE 3/19/99
EIVER JWW
e NO 02-5840 D. 1
eject Access Prop DD
Garby To

CONSENT FOR ACCESS AGREEMENT

Name of the Owner:

VIDUR BUDHAN

Address:

SOUTH RAINFIELD N.J 07080

Telephone:

908-412-8403.

(lot size, type of structures

Description of Property: 160 × 160 LoT:

etc.)

ONE FAMILY BRICK BISG.

I consent to employees, contractors, subcontractors, agents, or other authorized representatives of ENVIRON (collectively referred to as "ENVIRON") entering and having continued access to my property for the purpose of: (1) collecting soil samples relating to the investigation of subsurface contamination in the area; (2) surveying of the property; (3) establishing a "baseline" record of existing conditions including plant material, structures, etc. by written inventory and photographs; (4) removal of contaminated soil as necessary; and (5) replacement of the soil removed with clean soil and restoration of the property to the original baseline conditions established in (3).

I realize that these actions by ENVIRON are undertaken in conjunction with an action being conducted by the U.S. Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), 42 U.S.C. §9601 et seq.

This written permission is given by me voluntarily with knowledge of my right to refuse and without threats or promises of any kind.

I hereby certify that I am the owner or representative of the owner of the abovereferenced property which will be affected by this Agreement. I am authorized to enter into this agreement.

3-17-99 Date

Violer Budhau
Signature

Viduk Budhan

Name (PRINT)

RECEIVED DATE \$23/55 RECEIVER TOY N Case NO 02-5840 D. 1 Subject Access - lon

CONSENT FOR ACCESS AGREEMEN POPY TO

Name of the Owner:

Address:

Telephone:

Description of Property:

(lot size, type of structures

etc.)

I consent to employees, contractors, subcontractors, agents, or other authorized representatives of ENVIRON (collectively referred to as "ENVIRON") entering and having continued access to my property for the purpose of: (1) collecting soil samples relating to the investigation of subsurface contamination in the area; (2) surveying of the property; (3) establishing a "baseline" record of existing conditions including plant material, structures, etc. by written inventory and photographs; (4) removal of contaminated soil as necessary; and (5) replacement of the soil removed with clean soil and restoration of the property to the original baseline conditions established in (3).

I realize that these actions by ENVIRON are undertaken in conjunction with an action being conducted by the U.S. Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), 42 U.S.C. §9601 et seq.

This written permission is given by me voluntarily with knowledge of my right to refuse and without threats or promises of any kind.

I hereby certify that I am the owner or representative of the owner of the abovereferenced property which will be affected by this Agreement. I am authorized to enter into this agreement.

RECEIVED DATE 3/19/59	
RECEIVER UMW	
Case NO 02-58400./	
Subject Access Agreement	Room
Copy To	- 6

CONSENT FOR ACCESS AGREEMENT

Name of the Owner:

THOMAS BRANDT / FRANCES TUCK

Address:

119 DELMORE AVE

OO. PLAINFIELD - N.J. -07080

Telephone:

908-757-0815

Description of Property: 1 - FAMILY - RESIDENTIAL - LOT 50 × 100

(lot size, type of structures etc.)

DETACHED GARAGE

I consent to employees, contractors, subcontractors, agents, or other authorized representatives of ENVIRON (collectively referred to as "ENVIRON") entering and having continued access to my property for the purpose of: (1) collecting soil samples relating to the investigation of subsurface contamination in the area; (2) surveying of the property; (3) establishing a "baseline" record of existing conditions including plant material, structures, etc. by written inventory and photographs; (4) removal of contaminated soil as necessary; and (5) replacement of the soil removed with clean soil and restoration of the property to the original baseline conditions established in (3).

I realize that these actions by ENVIRON are undertaken in conjunction with an action being conducted by the U.S. Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), 42 U.S.C. §9601 et seq.

This written permission is given by me voluntarily with knowledge of my right to refuse and without threats or promises of any kind.

I hereby certify that I am the owner or representative of the owner of the abovereferenced property which will be affected by this Agreement. I am authorized to enter into this agreement.

Name (PRINT)

		HECEIVER	
		Case NO 02-504	D.1
	CONSENT FOR ACCESS AGREEMENT	Subject Assess	Pop X
Name of the Owner:	CATHERINE TURRY	Copy To	*.
Address:	115 DELMONE AUG		
	SO PLAINFIELD N.J. J	7080	
Telephone:	908-755-4263		·. -
Description of Property: (lot size, type of structures	100×100 + Nouse 4 De	tached 900	unge
etc.)			

I consent to employees, contractors, subcontractors, agents, or other authorized representatives of ENVIRON (collectively referred to as "ENVIRON") entering and having continued access to my property for the purpose of: (1) collecting soil samples relating to the investigation of subsurface contamination in the area; (2) surveying of the property; (3) establishing a "baseline" record of existing conditions including plant material, structures, etc. by written inventory and photographs; (4) removal of contaminated soil as necessary; and (5) replacement of the soil removed with clean soil and restoration of the property to the original baseline conditions established in (3).

I realize that these actions by ENVIRON are undertaken in conjunction with an action being conducted by the U.S. Environmental Protection Agency pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), 42 U.S.C. §9601 et seq.

This written permission is given by me voluntarily with knowledge of my right to refuse and without threats or promises of any kind.

I hereby certify that I am the owner or representative of the owner of the abovereferenced property which will be affected by this Agreement. I am authorized to enter into this agreement.

CATHERINE TURRY
Name (PRINT)

RECEIVED DATE 3/27/99

CONSENT FOR ACCESS AGREEMENT

S. PLAINFIELD, NJ 07080

MICKEY MAZZE!

207 Damors Ave

908-753-2894

Name of the Owner:

Address:

Telephone:

Description of Property: (lot size, type of structures exc.)	50 x 100	
	SINGLE FAMILY 2	STORY HOME
representatives of ENVIR continued access to my prinvestigation of subsurface (3) establishing a "baselinetc. by written inventory (5) replacement of the soil original baseline condidors	roperty for the purpose of: (1) ce contamination in the area; (2 ne" record of existing condition and photographs; (4) removal il removed with clean soil and ons established in (3).	s "ENVIRON") entering and having collecting soil samples relating to the collecting soil samples relating to the collecting of the property; and including plant material, structures, of contaminated soil as necessary; and restoration of the property to the
being conducted by the U	J.S. Environmental Protection	taken in conjunction with an action Agency pursuant to the Comprehensive Act (Superfund), 42 U.S.C. §9601 et
This written permissi and without threats or pro		with knowledge of my right to refuse
	I am the owner or representations will be affected by this Agre	ve of the owner of the above- ement. I am authorized to enter into
3/20/99		Muky Ely
Date	-	Signature -

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ORIGINAL MARCO 3/18/99 Raid ON 3/18/99

MICKEY . R. HALLE!

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APPENDIX C

Health and Safety Plan (HASP) Updates for Tier II Property Removal Action

1.0 INTRODUCTION

The health and safety procedures to be followed by personnel implementing a removal action at seven Tier II residential properties located in South Plainfield, New Jersey will be in accordance with the Health and Safety Plan (HASP) included in the *Revised Removal Action Work Plan, South Plainfield, New Jersey* (Tier I Work Plan) approved by USEPA on December 7, 1998. This removal action includes the excavation, removal and transportation of polychlorinated biphenyl (PCB) contaminated soils.

The HASP was developed in accordance with the requirements of the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) and the United States Environmental Protection Agency (USEPA) Standard Operating Safety Guidelines (OSWER 1988). The HASP establishes the minimum requirements to maintain safe working conditions at the site.

The HASP will apply to any ENVIRON personnel working on this project. All contractors and subcontractors (Contractors) will be required to review site conditions and work to be performed to determine specific safety and health requirements for their personnel. Each Contractor involved in removal action activities at the Site will ultimately be responsible for the safety of its personnel and representatives. An agreement to comply with the requirements of the HASP must be signed by all personnel and visitors prior to entering work areas other than the Support Zone.

Specific updates to the HASP required for the Tier II Property removal action activities are provided as follows:

- Section 2 Site Description;
- Section 3 Contaminant Characterization;
- Section 10 Action Levels; and
- Section 14 Emergency Response.

2.0 SITE DESCRIPTION

The remedial action work activities will take place at seven Tier II residential properties located in South Plainfield, New Jersey. These properties are located along Delmore Avenue and Hamilton Boulevard, west of the Hamilton Industrial Park (The Site). The Tier II properties are identified as follows:

- 207 Delmore Avenue (Property U);
- 403 Hamilton Boulevard (Property W);
- 115 Delmore Avenue (Property X);
- 346 Hamilton Boulevard (Property AA);
- 511 Hamilton Boulevard (Property BB);
- 119 Delmore Avenue (Property CC); and
- 229 Delmore Avenue (Property DD).

3.0 CONTAMINANT CHARACTERIZATION

PCBs are the only contaminants of concern that have been identified at these properties. The PCBs were found in soils, with the highest reported soil concentration of 60 J mg/kg on the property located at 229 Delmore Avenue.

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10.0 ACTION LEVELS

This HASP identifies Action Levels (ALs) that have been established to ensure that the correct type of protection is used to protect personnel when specific conditions are encountered on the site. These ALs establish a trigger level which, if exceeded, require that a particular "action" be taken.

10.1 Action Level

In the preparation of the Action Level (AL), the results from the collection of soil samples that identified PCBs in the soil were reviewed. Using a maximum concentration of 74 milligrams of PCBs per kilogram of soil (74 mg/kg), an exposure limit for PCB-containing dusts was calculated using the following formula:

Action Level =
$$\frac{EL (mg/m^3) (10^6)}{Soil Conc. (mg/kg) (Safety Factor)}$$

Where: EL = exposure limit (PEL or TLV)

Safety Factor = 10 (conservative factor based on adequacy of site characterization)

Substituting the values into the formula yields the following exposure limit:

$$\frac{0.5 \, mg/m^3 \, (10^6)}{74 \, mg/kg \, (10)} = 675 \, mg/m^3$$

From this equation, the total dust concentrations in air would need to reach 675 mg/m³ to create an airborne concentration of PCBs that would equal the PEL or TLV. Since the mini-RAM measures respirable dust particles, it has been assumed, based on prior experience, that approximately 50% of dust generated would be in the respirable range (less than ten microns

in diameter). Therefore, the calculated exposure limit is divided by 2 to yield an AL of 338 mg/m³. Dust generation of this magnitude would not occur under typical excavation work activities. Also, this AL is more than an order of magnitude higher than the total nuisance particulate standard of the ACGIH (TLV-TWA = 10 mg/m³), the lowest published standard. Therefore, the nuisance particulate standard will be used as the AL. This AL is expected to be conservative for both workers and residents especially given the short term nature of the potential exposure. Further, the AL based on the PCB PEL/TLV already incorporated a safety factor of 10 and this nuisance dust-based value is over one order of magnitude lower.

10.2 Response to AL Exceedance

The AL will be used by the SHSO to determine when a modification to the site level of protection should occur. The SHSO will have the authority to make decisions regarding the upgrading or downgrading of PPE based on visual observation of dust generation, the results of direct-reading instrument measurements and TWA air sampling specific for PCB, if warranted.

To reduce the exposure to employees, the highest priority will be given to engineering controls and administrative controls. An example of an engineering control involves wetting the site to reduce the concentration of airborne dust. An example of an administrative control involves changing the work practices or procedures. The site supervisor will implement any controls that are required to avoid the exposure of site personnel.

When determined by the SHSO, TWA sampling specific for PCBs may be conducted to confirm the exposure and the airborne concentration of the contaminant. In addition, TWA sampling will confirm the results obtained using the direct-reading instruments.

14.0 EMERGENCY RESPONSE

Site personnel will be prepared to respond quickly in the event of an emergency. Emergencies may include illnesses or injuries, fires, vehicle accidents, spills, releases of hazardous substances or sudden changes in the weather. Local Emergency Response Teams will be called on to respond in the event of an emergency (see Table 14-1).

The site supervisor has primary responsibility for responding to and correcting emergency situations. The site supervisor is also responsible for insuring that corrective action measures have been implemented, appropriate authorities notified and follow-up reports completed.

Personnel working on the project will receive training to ensure that they understand the procedures to follow in the event of an emergency. This includes:

- Hazard Recognition;
- Signaling an emergency; and
- Evacuation routes.

The list of emergency contact phone numbers, provided in the table below, will be posted at all site telephones and vehicles. This list includes local emergency responders and medical facilities, and other agencies to be contacted in the event of an emergency.

Required emergency equipment locations on the site are as follows:

Eyewash:

Designated decontamination area

First aid kit:

Designated decontamination area

Fire extinguisher:

Designated decontamination area and on vehicles operating in the

exclusion zone

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The hospital or emergency care facility must be provided information concerning the nature of the emergency, who was injured, and any other information that will assist personnel in treating the injured worker. When calling for assistance in an emergency situation, the following information should be provided:

- 1. Name of person making call
- 2. Telephone number at location of person making call
- 3. Name of person(s) exposed or injured
- 4. Nature of emergency
- 5. Actions already taken

Recipient of call should hang up first--not the caller.

All injuries and illnesses must be immediately reported to the site supervisor. In the event of an injury or illness while on the job-site, first aid should be administered and an immediate determination should be made as to the need for further emergency treatment and/or transportation. Site personnel familiar with the incident should accompany any person transported to a hospital for treatment.

Any minor incident, not requiring hospitalization, should be handled by trained first aiders using first aid materials provided by them and maintained by the site supervisor. First-aid providers who may come in contact with or potentially come in contact with blood or other bodily fluids, should be informed about the requirements of the OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030).

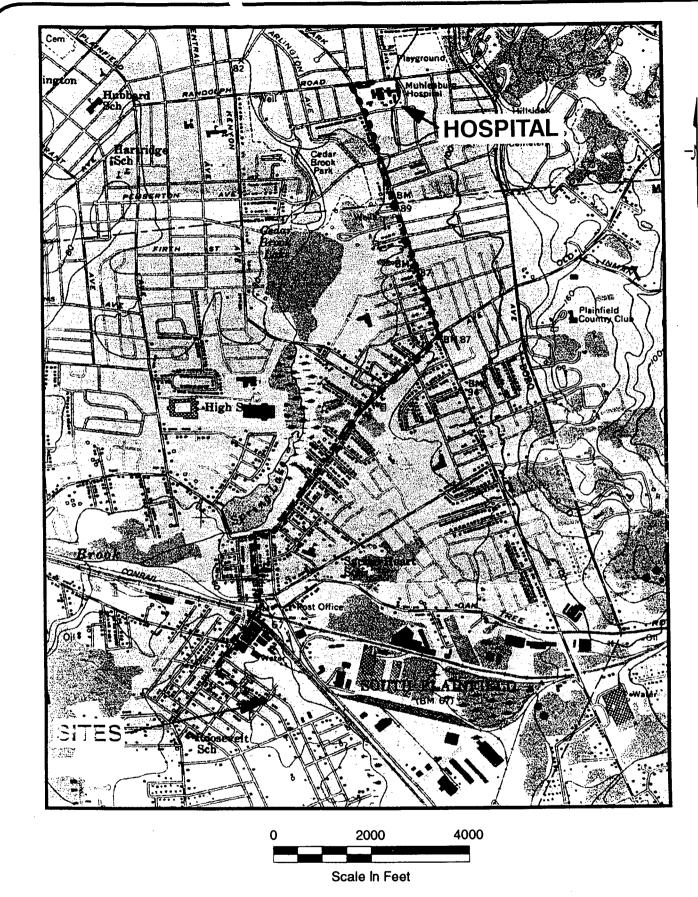
14.1 Route to Hospital

In the event that an injured person must be transported to the hospital, the following directions are provided to Muhlenburg Hospital (Hospital Route Map included in Figure C-1):

Turn west onto Delmore Avenue. Proceed to the corner and take a right onto Hamilton Boulevard. Proceed to the first light and make a right onto Maple Avenue. Proceed on Maple Avenue to the next light and make a left onto Park Avenue. The hospital is approximately 1 mile down on the right. For the emergency entrance, proceed to the end of the block and turn right onto Randolph Avenue.

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TABLE 14-1				
Emergency Contact Phone Numbers				
Ambulance: South Plainfield Rescue Squad	911			
Police: South Plainfield Police	911 -			
Fire Department: South Plainfield Fire	911			
Hospital General Number:	908-668-2000			
Hospital Emergency Room:	908-668-2200			
Client contact:	617-832-1000			
Poison Control Center	(800) 233-3360			
CHEMTREC	(800) 424-9300			
National Pesticide Information	(800) 845-6733			



SOURCE: USGS 7.5 MINUTE SERIES PLAINFIELD, N.J. QUADRANGLE, 1955, PHOTOREVISED 1981.

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ROUTE TO HOSPITAL

TIER II RESIDENTIAL PROPERTIES SOUTH PLAINFIELD, NEW JERSEY

FIGURE

C-1

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14.2 First Aid for PCB Exposure

The following first aid instructions for PCB exposure are from the NIOSH Pocket Guide to Chemical Hazards:

Eyes:

- Immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids.
- Get medical attention immediately.
- Contact lenses should not be worn when working with this chemical.

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